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THE CULTIVATOR.

"TO IMPROVE THE SOIL AND THE MIND."

Mr. Coleman's Address before the Am. Institute.

We have received from the respected author a copy of the above named Address, delivered before the American Institute in New-York, April 14, 1841, and have read it with a pleasure which the information conveyed, the great truths advanced, and the eloquence with which they are enforced, are well calculated to excite. The subject assigned Mr. C. was American Agriculture, a broad field, and in passing over which, with all his skill in selection, he could only touch the most prominent points within the limits of an ordinary address. The introductory remarks are truly beautiful, as illustrating the manner in which the most trifling contributions constitute the most magnificent and durable structures, and by inference, the steps by which agriculture has reached its present elevated position. His comparison of the relative value of commerce and agriculture is most just, and he gives, from McQueen's Statistics of Britain, the fact that the manure annually used in that kingdom is of more value than the whole amount of its foreign trade. His argument that government is bound to protect and promote agriculture as the surest means of promoting and securing the happiness of a nation, the great object for which all governments are instituted, will not be easily answered. The remarks respecting the efforts made to improve our agriculture, in importing stock, writings on agriculture, agricultural periodicals, &c. contain much useful information respecting the men who have been foremost in some of these enterprises. But if we were called upon to name any part of the address distinguished above the rest for its truth, and fidelity, and justness of application, it would be that part in which he describes the effects of our inflated currency, our mad speculations, and the injurious effects such things must have on the industry and morals of a country; and we hope with him, that "when a few more of the light-fingered gentry of Europe, who have sped their way to our shores, and others of the same class among ourselves, who through greater modesty commit their robberies on the industrious classes under at least the cover of legal forms, not less robbery however for being thus protected, find their proper level, labor, honest useful labor, whether of body or mind, will come to be duly honored."

A. B. Allen in Europe.

In the list of passengers on board the Packet Ship Mediator, Capt. Chadwick, that sailed on the 1st of June, for London, may be found the name of our friend A. B. Allen, Esq. of Buffalo, well known to our readers and the farmers of this country, as one of the most intelligent and enterprising of our agriculturists. Mr. Allen goes out to England for the purpose of making himself more particularly acquainted with its agriculture, and of procuring improved stock of different kinds, and from his great practical knowledge, correct taste, and unquestioned skill as a breeder, and his known determination to purchase *none but the best*, without regard to price, our farmers may expect something very choice upon his arrival, which he informs us will be early in September next.

We were much gratified in learning the intention of Mr. A. to visit England. Too many of those who go out from this country are indifferent to the interests of agriculture, incompetent observers, and some with the very best intentions, not having the desired practical knowledge on such matters, are very liable to err or be deceived. Mr. Allen in these respects, as a representative of American agriculturists, is one of which we may be certain he will do honor to our farmers, and ensure respect. The concluding number of his 'Letters from the West,' papers which have been read with much interest, will be found in the present no. of the Cultivator. It will be found most interesting to the cattle breeder, being an account of a visit to some of the largest and best herds of Short Horns in Ohio, and embracing also the Pork Statistics of Cincinnati.

We have been often asked the prices of animals abroad, and the expense of bringing them home, but could not reply as fully and satisfactorily as we could under the circumstances have wished; we shall beg to refer all such inquirers to Mr. Allen on his return, who will then be able to more definitely answer them. Mr. Allen has been so kind as to favor us with his address in England, and we shall take pleasure in forwarding to him such communications on these subjects, as our friends may please to send us, and that shall reach this city, *post paid*, by the 25th July inst. If Mr. Allen's time will permit, we shall expect communications from him while abroad, on matters interesting to the farmer.

Butter.

The summer is the best time for the makers or the purchasers of butter to lay in their stock for the year. It is the best time, because it is usually the cheapest, because it is the sweetest and richest, and because, if put down sweet and in good condition, it will remain good through the season. It is useless to deny that there is a vast deal of wretched butter consumed in this country, when it would be quite as easy, and more for the profit of the makers, to produce a superior article. We have good pastures, good cows, and there can be no good reason given why good butter should not be the result. In the first place, every thing connected with the making of butter should be perfectly sweet and clean. No smoke, dust, or disagreeable smells should ever exist in the milk-house or dairy. Every thing of this kind has its effect on the cream, and leaves its taint on the butter. The milk should be skimmed, and the cream churned, at the proper time and the proper temperature. The buttermilk should be promptly separated; and in salting, none but salt of the finest, purest kind is admissible. Next to leaving milk in the butter to putrefy, the use of bad salt has the most influence in making this article worthless. Many recommend washing butter in clear cold water to free it from the milk, and this mode is practiced in some of the best butter districts of Europe or the United States. If the milk is thoroughly separated, however, the particular method is of very little consequence; and perhaps a machine for working the buttermilk out, such as has been figured in the Cultivator, or some similar contrivance, will be found as effectual as any thing. But butter, if made ever so perfectly, will not keep well unless it is also packed well. Total exclusion from the air seems necessary, and when this is combined with a low temperature, butter can be kept an indefinite period of time. It is the adventitious circumstances only that make poor butter, for as it is a pure animal oil, if freed from those things that have a tendency to spoil it, it would keep as long and with as little trouble as tallow or lard. It is the difficulty of freeing butter from the substances connected with it, that have a constant tendency to putrefaction, that renders the packing of butter of so much consequence to its preservation. Stone jars we have found superior to any thing else for packing butter. They are sweet, cool, impervious to air, and from their shape leave but a small surface to be exposed, or covered with brine. The butter, whether packed in jars or firkins, must be beat solid, and the vessel, whatever it may be, should be filled at once. The difficulty attending firkins, is, that all wood contains more or less acid, and this, decomposing the salt, imparts an unpleasant taste and flavor to the butter in the cask. This is partly remedied by filling the firkins with strong brine, and allowing them to stand a few days before using, but the cause is never entirely removed. Experiments made in Scotland proved that the wood of the linden or basswood contained the least acid, and this is supported by the fact that in the Tyrolese salt-works, where water is brought to the point of saturation by percolating through bundles of twigs, or faggots, those of the basswood are always preferred to any other. In this country, firkins of heart-ash are preferred, and perhaps are as good as any that can be used. We have known a firkin of butter properly headed, thrown into a well where the water was of the temperature of about 50° to 55°, and when taken out, after a submersion of a year, was as sweet as when put in. Perhaps, where circumstances admit, butter might be advantageously kept in this way in vats filled with running spring water of the proper temperature. Jars or firkins when filled with butter, should have some pure strong brine poured on the top of the butter, and kept there for the purpose of excluding the air until the article is wanted for use. Instead of the brine some use salt, and others prefer a linen cloth saturated in brine, for this purpose. But whatever is used, the top of the jar or firkin should be carefully covered with a board, or what is much better, a clean flat stone. They should stand on flat stones, in a cool place in the cellar, and may be occasionally looked to, to see that the surface is properly secured, and the air excluded.

Inoculation.

Where young plantations of fruit trees are cultivated, it is very desirable that there should be a certainty as to the fruit the trees will produce when planted in the fruit garden or orchard, a certainty rarely attainable, when trees are grown to maturity from the seed. The peach, apple, &c. do not often, from seeds, give the same fruit as the original tree; hence grafting or inoculation is resorted to, that no mistake may exist. The philosophy of budding or inoculation is very plain. While the layer of new wood for the season is forming, and after the descending juices have become thickened, the bark readily cleaves from the tree. If, at this time, a bud be carefully cut from the branch of another tree of the same species or family, and inserted in an incision made in the bark of the one it is wished to inoculate, it will adhere, become a part of the tree, and if that is headed down, the bud will, in its growth, become the main stem or the tree itself. In this way the orchardist is able to be certain that he is cultivating the fruit he wishes, and the nurseryman that he is vending such trees as are required by his customers.

Apples, peaches, pears, plums, quinces, and cherries, may be inoculated with success, if the operation is performed at the proper time, that is when the bark cleaves from the tree easily, and the juices have become of proper thickness. This time varies with the different varieties of fruit trees, and the best time can be ascertained most certainly by experiments on the trees themselves. The months of July and August are the best, and it will be found that nearly all fruit trees may be inoculated in the course of July. With budding, as with grafting, the nursery is the best place, and when pears are budded in quince, thorn, or apple stocks, they will be found to succeed better as fruit bearing trees, when put in as near the ground as possible. The bud to be inserted must be taken from the last year's growth of the tree, carefully separated from the wood so as not to injure the bud in the least, and inserted in a split of the bark in the stock in such a manner as to fit close in every part, and be well secured with strips of bass matting, woolen yarn, or other substances that will exclude the air, and confine the bark. Budding is so easy a process, and its results so certain, that while there is so much room for the improvement of our fruits, farmers should make themselves acquainted with the practice, and either by grafting or inoculation, do away the reproach so often well merited, of choosing rather to beg choice fruits of their neighbors, than to take the little pains necessary to provide such fruits for themselves.

Wool.

We have received from our correspondent, L. A. Morrell, Esq. of Tompkins co., samples of the wool grown by him the past season, and can say that the greater part of the specimens are equal in quality to any that has ever fallen under our notice. The sheep from which the samples were taken are full blood Saxony, and the beautiful appearance and silky fineness of the wool, warrants the commendation and prices he has received from those first rate judges of that staple of our country, the Messrs. Lawrence, of Boston. Mr. Morrell's skill in the management of his large flocks (nearly 2000 in number) is best shown by the small losses to which he is annually subjected, when compared with many others.

Colored Cheese.—Considerable complaint has been made in England as to the effect of colored cheese, and it is strenuously maintained by competent judges that the use of Annatto which is the principal coloring material, must have a pernicious effect. The matter is likely to be fully investigated.

The Grasses—Darlington's Discourse.

We have before us, "A Discourse on the Character, Properties, and Importance to Man, of the Natural Family of Plants called Graminæ, or true Grasses, delivered as a lecture before the class of the Chester County Cabinet of Natural Science, Feb. 19, 1841, by WILLIAM DARLINGTON, M. D."

To those who are acquainted with the extent and value of Dr. DARLINGTON's labors in the field of Natural Science, not a word in commendation of this Discourse will be necessary; for although written in a manner calculated to interest a popular audience, it abounds with valuable facts, and exhibits on every page, proof of his familiarity with, and mastery of his subject. We regret that we are unable to give more than a few extracts, where there is so much to instruct.

His definition of what constitutes a grass, and the marks by which this natural family may be distinguished from other plants, is one of the best we have seen; it is as follows:—

"Whenever we meet with a plant, having a cylindrical, jointed *stem*, with the joints solid, and the intervening portions hollow—or, in a few instances, filled with a pith-like substance,—the *leaves* alternate, one originating at each joint, embracing the stem with its base, and forming a sheath which is slit on one side down to its origin,—and the *flowers* protected by those peculiar envelopes, known by the name of *chaff*,—we may take it for granted that we have before us a *true grass*. Brief and simple as is this definition, it will be found to contain the most obvious characteristics of the tribe; sufficient, it is believed, to distinguish it from all others."

After mentioning some of the common grasses, such as are universally known as such, he proceeds to mention some not generally recognized as such; among which are included Indian corn, broom corn, sugar cane and the bamboo, the last of which is a true grass, though sometimes growing 60 feet high. "The known grasses of Chester county, native, naturalized and cultivated, amount to about 100 species, or one-tenth of the whole number of flowering plants inhabiting the same district." In so numerous a family, resemblances must exist which the practiced botanist only can detect; and in the want of attention, or want of knowledge on this point, the strange doctrine of the transmutation of plants has its origin. On this subject, we extract the following note, containing an allusion to a man who used to write himself down 'United States Geologist,' an allusion in our opinion, not more pointed than just:—

"It is a curious circumstance, in the history of this vulgar error, that, in former times, when the OCCULT SCIENCES flourished, the peasantry of Europe imagined all our cultivated small grains to be subject to this kind of transmutation:—that wheat was often changed, first into RYE, then into BARLEY, from Barley to RAY GRASS, or LOLIUM, from Lolium to BROMUS, or Cheat, and finally, from Bromus to OATS! They supposed, moreover, that by the agency of a fertile soil, the degenerate grass could be gradually restored to its original form; or at least, that it could be brought back as far as RYE!—"Veteres credebant frumentum per gradus degenerare in macriori terra, atque Triticum in SECALE, Secale in HORDEUM, Hordeum in BROMUM, Bromum in AVENAM et sic per gradus descendere, immo credebant etiam semina Bromi vel Hordei in fertiliori terra producere Secale."—CAROLI A LINNÉ, AMŒNITATES ACADEMICÆ, TOM. 5.—Even in our own enlightened age and country, as we are wont to phrase it—there are yet many persons strongly tinctured with the notion, that Wheat is frequently transmuted into BROMUS, or Cheat;—though I have not met with any so full in the faith, as to believe they can bring the degenerate offspring back again to its pristine state. It is remarkable, also, that this obsolete notion—so entirely exploded among scientific Naturalists—has lately found an advocate in a gentleman of some pretensions as a Geologist,—and who has, more recently, acquired considerable notoriety, by his researches concerning TERRITORIAL LIMITS: I mean Mr. FEATHERSTONHAUGH. As that gentleman has been so astute in detecting the mutability of the LAWS OF NATURE, we ought not, perhaps, to be surprised at his discovery of the extraordinary MUTATION in our NORTH-EASTERN BOUNDARY, since it was established by the fathers of the Republic! It is quite as likely that landmarks should change their locality, as that subjects of Natural History should lose the distinctive characters impressed on them by the hand of the Creator."

The following remarks on the value of grasses for hay, and the best time of cutting them for this purpose, will commend themselves to the attention of every farmer. We have, however, been accustomed to give the first place among the grasses to 'Timothy or Herd's grass,' rather than the Meadow or June grass: It may be well to mention here, that the clovers, lucerne, &c., though ranked by the farmer among the grasses, do not belong to them, but an entirely distinct family. Still, most farmers, and indeed from habit, many who are acquainted with this difference, speak of the clover as a grass, and rank its seeds among the grass seeds.

"In an *Agricultural* point of view, the superior value of the grasses as materials for pasture and hay, is owing to the large quantity of saccharine matter with which they abound about the time of flowering; and which is the source of that rich, sweet odor, observable in well-preserved hay. This saccharine matter, which pervades the whole plant before flowering, and is most perfectly elaborated at that epoch, is designed to be ultimately concentrated and deposited in the seeds, chiefly in the form of *farina*; and hence we find the *herbage* of comparatively little value after the fruit is fully matured. The skilful Agriculturist, therefore, when he wishes to have good *hay*, cuts his grass at the moment when the nutritious juices are most perfect, and while they are diffused throughout the plant. But when his main object is the *seed*, as in our cultivated grains, he of course postpones his harvest until the career of vegetation is finished. It is needless to enlarge on the importance of the herbage of the Grasses, in supplying the food of our domestic animals and, indirectly, the animal portion of our own food. I will, however, mention those species which are deemed of chief value in our meadows and pastures, naming them in what I consider the order of their excellence. 1. The Meadow, or Green Grass, erroneously called "Blue Grass," in Kentucky (*Poa pratensis, L.*)—2. Timothy, or the "Herd's Grass," of the Northern States (*Phleum pratense, L.*)—3. Orchard Grass, (*Dactylis glomerata, L.*)—4. Meadow Fescue, (*Festuca pratensis, L.*)—5. Blue Grass, (*Poa compressa, L.*)—6. Ray Grass, (*Lolium perenne, L.*)—7. Herd's Grass, of Penna. often called "Red Top,"—the "Bent Grass," of the English, (*Agrostis vulgaris, L.*)—and 8. Sweet-scented Vernal Grass, (*Anthoxanthum odoratum, L.*) There are a few other Grasses—native, or partially naturalized—to be found on our farms,—and which are more or less eaten by cattle, when the better ones are wanting; but they are of comparatively little value, and good farmers are always desirous to supersede them, as soon as possible, by some of those above named. It is remarkable, that all the Grasses here enumerated, are believed to have been introduced into our country. They are all more or less extensively naturalized; but some of them require to be regularly sown, to insure a full crop; and are therefore known as *artificial* Grasses. Those generally cultivated here, are the Timothy and Orchard Grass,—and occasionally we see the Ray and Herd's Grass, or Red Top; though these last are not so much esteemed. The others are completely naturalized; and when the soil is either originally fertile, or adequately improved, the best of them, viz. the Meadow Grass and the Fescue, soon appear spontaneously in our pastures, and supersede the artificial ones. Now and then we hear of attempts to introduce *new* Grasses to the notice of our Agriculturists, accompanied by exaggerated statements of their value, such as the Taller Oat-Grass, (*Arena elatior, L.*) sometimes called "Grass of the Andes;" and a few years since, one of our coarse indigenous Grasses, called "Sesame" or "Guinea Grass," (*Tripsacum dactyloides, L.*,) was so extravagantly lauded in the journals, that many lovers of novelties were induced to try the experiment of cultivating it, in place of the old approved plants; but, like some *other* "Experiments" that we wot of in our day, it resulted in a total failure. It is indeed exceedingly doubtful, whether any other Grasses are so well adapted to our climate and our wants, as those old and long-tried acquaintances of our farmers, which I have already enumerated."

There can be little question, that when we take into view the fact that from the plants technically called *Grasses*, man obtains his bread, and the domestic animals their food, the family must be considered the most important and valuable, of any that Providence has bestowed on man.

Woburn vs. Berkshire Pigs.

In the May number of the Tennessee Agriculturist, is a statement of an experiment made in feeding pigs of these two breeds, conducted on the part of the Berkshires by Mr. FANNING, one of the editors of that paper, and on that of the Woburns by Dr. SAMUEL MARTIN. The following is the result, condensed from the statements of those gentlemen:

		2 mo's.	3 mo's.	4 mo's	5 mo's.	6 mo's.
Berks.	Sally B.,	30 lbs.	50 lbs.	74 lbs.	100 lbs.	145 lbs.
	Black Rose,	"	"	"	"	136 lbs.
Woburns.	Berenice,	116 lbs.	186 lbs.	254 lbs.		
	Bertha,	108½ lbs.	174 lbs.	232 lbs.		

By this table, it will be seen that Dr. MARTIN's pigs far exceeded those of his competitor, although, under the circumstances, the trial cannot be considered a satisfactory one. Dr. Martin is an extensive breeder in Kentucky, and he considers his pigs, a cross of the Woburn with a large English hog which he calls the White Berkshire, superior to all others. We are glad to see the attention of practical men turned to the great point of actual feeding, as after all, the breed that will make the most meat with the least expenditure of food, and in the least time, must be the most profitable breed. But for this purpose, the pigs must not only be accurately weighed, but their food also, so far as regards quantity and quality, precisely ascertained. We know of no part of the world where these experiments can be more advantageously conducted than in the great West, and we believe the men are there who will enter upon and conduct such a series of experiments most satisfactorily. It is to be hoped the propositions of the spirited editor of the Agriculturist, will receive proper and prompt attention from the breeders of the west.

The weight of Dr. MARTIN's pigs at six months old, is certainly extraordinary, and probably hard to beat. If any of our friends have ascertained the weight of their pigs at that age, (live weight, it will be recollected,) and will furnish us with the names of the breed, mode of keeping, weight, &c., we should like it, and it might interest others. Although the average increase of weight in Dr. MARTIN's pigs was great, it was not equal to that of a Berkshire fed by Mr. CURD of the same State, or one of the same breed fed by Mr. MARKS of Onondago Co., N. Y. Farmers should know no preference to breeds, any further than their true interest is concerned, and that prejudice is unfortunate which prevents their adopting the course which tends most directly to their prosperity. Careful experiments made by competent men, and the results communicated to the public, will do much to set agriculturists right in this important matter.

Report on the Silk Culture.

Among the reports made at the late meeting of the Cuyahoga County Agricultural Society, was one on the Culture of Silk from the pen of J. W. ALLEN, Esq., which places the practicability, utility, and necessity of the culture in a very lucid and forcible point of view. This is a subject which in our opinion should not be suffered to sleep until the culture of silk has taken as firm a hold as the culture of cotton has in our country. What has been done, is sufficient to show what may be done, if some of the spirit and energy for which Americans are famed, is directed to this point. We should be pleased to extract largely, but have room for only the following:—

"If it requires a quarter of an acre of land to produce wheat sufficient for one barrel of flour, worth five dollars, the same extent of land appropriated to the culture of silk, might, and should produce ten pounds of silk worth sixty dollars. The transportation of a pound of silk worth six dollars, will cost no more than a pound of flour worth three cents. The cultivation of an acre of mulberry trees, need not exceed double the expense of a corn crop. But if our estimate be too large by one half, the product would still yield a much better return than any other crop."

WORK FOR THE MONTH.

The great business of July at the north, is hay making; and so much of the health and profit of the stock of the farmer is depending on the quantity and quality of the hay made, that it must be considered one of the most important labors of the farm. Much of the value of hay depends on the time at which the grass from which it is made, is cut. All plants intended for nutrition, are found to contain a quantity of saccharine matter, or substances convertible into sugar; and the period when this matter is most abundantly developed in the plant, is found to be the best time for cutting it for hay. In the grasses, however, there seems to be some little difference as to the period of their growth in which the most saccharine matter is found, some showing the most at the period of flowering, and some at a later stage.

Of the grasses most cultivated for hay in this country, we name the following, adding from the celebrated Woburn experiments, a few items in a tabular form that may interest the farmer, as indicating the best time for cutting and curing hay:

Grass and Name.	Weight per acre at Flowering			Do. at seed time.		
	Grass.	Hay.	Nut. Mat.	Grass.	Hay.	Nut. Mat.
June Grass,	10,209	2,871	279	8,607	3,403	199
Kentucky blue Grass,		7,337			5,104	
Smooth stalked Grass,						
Meadow Catstails,	40,867	17,385	1,895	40,867	19,397	3,688
Timothy Grass,		23,481			21,469	
Orchard Grass,						
Cock's foot Grass,	27,806	11,859	1,089	26,344	13,272	1,451
Perennial Rye Grass,		16,015			16,272	
Herd's Grass,						
Red Top.	13,624	6,655	733	14,973	8,326	1,169
		9,000			6,726	

The clovers, although generally ranked among the grasses, do not properly belong to them; yet they are extensively used for making hay; and the same rules for cutting, will apply to them, that are adapted to the true grasses.

From the experiments made at Woburn, it will be seen that the most favorable time for cutting grasses, is usually when the seeds are formed, but before the stem becomes dry, or the juices have been absorbed by the seeds or dried away. There is reason to believe that farmers err in both extremes in this matter; some cutting while too green, or when in flower, and others letting the grass remain till it becomes dry, or like straw. But if there is much depending on the time of cutting, there is still more in the method or perfection of curing, and it is here that the greatest skill of the farmer is requisite.

Unless there is urgent necessity for the measure, grass for hay should not be cut immediately after a heavy or prolonged rain. There should be time for the moisture with which the plant is at such times saturated, to be evaporated, and this will be done much sooner while the grass is standing, than if cut and thrown into masses. Good weather, and a dry clear air, but not too hot a sun, will be the best for making hay; and there is no climate in the world that affords ordinarily more such days, than that of the United States.

Hay making is one of the most laborious parts of a farmer's work, and he should economize the time as much as possible. Mowing should be done in the morning. The grass cuts easier, is made into hay more readily, and if the laborer needs rest, he can take it during the hottest part of the day. If the mower commences his work at sunrise, a half day's work will be done by ten o'clock, and he will find two hours rest more grateful then, when others are toiling in the sun, than it would have been if spent idly in the morning, or lost in bed. Shaking out the hay, or raking it, is light work compared with mowing; hence this should be done when it can be best borne, and when the frame is most invigorated.

There are two things which the man used to mowing never neglects; one is, to have his sythe sharp, and the other, to have it fast on the snath. If you have a poor sythe, and are intending to mow through the haymaking season, better throw it away, or convert it into any other use, than to think of mowing with it. If a man wishes to wear out quick, let him mow or cradle with a dull sythe, and he will be soon gratified. The man who has never tried it, can form but a faint idea of the difference there is in the severity of labor, between mowing with a good sythe, well hung and secured, and a poor tool and poorly hung. It is a common thing to set boys mowing with men, but the practice is not to be commended. A boy cannot keep up with an experienced mower without slighting his work, or injuring his health, and most frequently he will do both.

There is not one man in ten, perhaps, who pretends to mow, that understands his business, or can manage a sythe so as to cut all the grass, cut it close to the ground as it always should be, and leave the field after raking level, and the stubble without ridges to mark every swath. But by cutting grass close, the crop is greatly increased, as there is a great difference between the weight and bulk of the tops and bottoms, and the chance greater for a full growth of rowen or after-math.

In districts where wheat and clover constitute the crops grown, and form the only rotation, the curing of clover for hay is an important operation. If allowed to stand too long, the leaves fall off and nothing but the naked stem is left; and if the curing is carelessly or improperly performed, the same result ensues, thus materially lessening its value for hay. We have found the best time for cutting clover, to be when the *heads* have partially changed their color, but the leaves remain fresh and green. Cut at this time, and cured in the cock, with as little exposure to the sun and wind, or being shaken as little as possible, it makes an excellent hay, and particularly so, if when seeded down, there was a good quantity of timothy seed mixed with the clovers. In curing hay in cocks, the grass mown in the morning, after it is wilted in the sun and dried, is in the afternoon, and before any dew falls, put up into cocks as high in proportion to the base, as is consistent with safety, and the air will circulate more freely through such, than if spread over a great extent of ground. They may stand in this way untouched one or two days, be the weather what it may, but usually, if the weather is good, the cocks are opened on the third day and aired, when they are again put up and stand until the fifth day, when after being opened and dried, the hay is usually fit for the stack. Hay undergoes in curing, a slight heating or fermentation, and put up in this way, it cures as rapidly as if exposed to the sun, while the crumbling of the leaves consequent on exposure and frequent turning is wholly avoided. But in whatever way grass is cured, it should be done so effectually as not to heat and mold in the mow or stack, a change which renders it worthless for nutrition, and injurious to the health of such animals as are fed upon it.

Where meadows are made smooth, as they always should be, the revolving horse rake will be found a labor-saving implement of great value; and where this cannot well be used, the single horse rake should always be found. Hay making requires labor enough at the best, and every saving should be adopted by the farmer.

Canada Thistle.—Do not forget to wage an unceasing warfare with this pest of the farmer. If in your pastures, cut them down to the ground frequently; if in your hoed or root crops, be careful not to let one escape; and if after the usual culture is over, you find them springing up, go over the crop again, and let the extermination be thorough. Above all things, never allow a thistle to ripen its seeds on your farm. We have seen some farmers let their thistles alone to so late a period, that they would perfect their seeds after being mown, and thus the labor was in a great measure lost.

Corn.—This is usually "laid by" in this month, that is, the culture of it ceases, and it is left to ripen its grain undisturbed. There are too many fields however, in which, owing to the ground being improperly prepared, the lateness of planting, or the unfavorable spring weather, the corn maintains a doubtful struggle with the weeds, and where an extra hoeing would be of decided benefit. The corn crop cannot be kept too clean, nor can the earth be stirred about the plants too frequently. If therefore you have no time to hoe, take your cultivator and run it backwards and forwards once or twice between the rows, and you will find the weeds will be fewer, the ground finer, the danger from drouth less, and the corn itself to grow more rapidly. We must help our corn crop forward this year as much as possible, or the frosts of autumn may find it still soft and unripe.

Turneps.—July is the month for sowing the English turnep, and during the fore part of it, the Swedes or Ruta baga may be sown with a reasonable prospect of success, and we advise those whose corn prospect is doubtful, to try a piece of ground with these valuable roots. The English or common flat turnep, requires a clean soil, and one containing much vegetable mold will be better than any other. Newly cleared lands on this account, usually give great crops of turneps. Any land, however, that is sufficiently rich, will grow turneps, and every farmer should raise some for use in the family, or for his stock. It is a good plan to sow over the young plants as soon as they come out of the ground with soot, ashes, &c., in order to keep off the fly.

Beets and Carrots, for use late in autumn, may be sown, and will frequently make good roots for preservation in winter. Gardeners sometimes sow peas for a late crop, in the early part of this month; but if sown, they should be soaked in soft or slightly warm water, for six or eight hours previous. Cabbage plants will do well, if transplanted this month, but require to be examined frequently to guard against the grub. This depredator rarely does much mischief after the middle of July.

Saving Seeds and Herbs.—Every farmer should as far as he can, raise and save his own seeds; and to do this, they must be attended to in their season. There are many herbs too, which are required for domestic purposes, such as Burnet, Mint, Sage, Parsley, Sweet Marjoram, Savory, Fennel, &c.; and many which are useful for medicinal purposes among animals, such as Tanzy, Smartweed, Wormwood, &c., all of which should be saved when their peculiar properties are the most fully developed, and this is about the time when they are in full flower. Herbs should be dried in the shade, where the air is pure, and be kept free from all moisture after being cured

English Corn Laws.

Great Britain at the present moment is shaken to its center by a struggle more fierce than any that has occurred since the passage of the reform bill. The Ministry have announced their intention to fix the duties on grain at certain rates, which it is clear will admit of extensive importations, or in other words, to abolish the corn law system of the kingdom. This has brought out the whole of the landed and farming interest in violent opposition; as it is well understood the exorbitant prices which have prevailed for years, and on which the present system of English farming is mainly based, could not be maintained without the protection of such laws. On the other hand, the manufacturing and commercial interests are ranging themselves on the side of Ministers, and as the Queen is said to favor them, it is probable they will eventually succeed, although present appearances indicate a prolonged struggle.

The questions at issue are very important to this country. It is the monopoly of the home market that shuts out our wheat from England; and the abolition or modification of the corn laws would open an extensive market to us at once. It is the first time in the history of England that the aristocracy or the land holders, have found themselves fairly brought into opposition with the mass of laborers, manufacturers, and commercial men, and the result can hardly be doubtful. The necessities of the government have led to this course, as it is only two years since the present premier, Lord Melbourne, declared a repeal of the corn laws impossible. The discussion has opened the whole range of commercial restrictions and free trade policy, and promises, even should it lead to the overthrow of the present ministry, a thing by no means improbable, to lead to a better understanding and a more correct application of these important principles.

The American Institute, and Agriculture.

An important proposition has been submitted to the Agricultural Societies of the counties in the vicinity of New-York, by the managers of that Association, which is, that the county societies co-operate with the Institute, unite their funds, and make their displays, and award their premiums at the annual Institute Fair to be held in October.

There appears to be no serious obstacles to such a concentration of means; as an arrangement might be effected by an alteration in the by-laws of the Institute, making the officers of the county Societies members, and thus avoiding a non-compliance with the act granting to the societies, the sums proposed to be distributed. The only question of importance to be decided, is, whether the agriculture of the several counties that should so unite with the Institute, would be as much benefitted, as by a Fair, exhibition, and distribution of Premiums at home. Would the mass of the farmers in these counties be as likely to be interested in the results? Would they be as likely to attend at New-York, as at a meeting in their several counties? And would the distribution of premiums at a single point, excite as much emulation, and exert as wide an influence as if made at many? These are some of the queries which such a proposition naturally excites, and which appear to deserve a serious consideration before the idea of separate county societies in the southern district is abandoned.

Of the attractions of the Fair at the Institute, and of the the favorable influence it has exerted, there can be but one opinion; and there is as little doubt that with an increase of means, will be a corresponding increase of activity, attraction and usefulness. New-York too, is a central point, the facilities of communication in every quarter are great, and the farmers of the neighboring counties are in the habit of frequenting the city for the purpose of market and trade. It may be true that the greater part of those who would attend a county exhibition would attend the Institute Fair, but it is possible also, that many would be glad to compete for premiums at home, that would find it inconvenient or impossible to attend at New-York. So far as we have been able to observe, the *number*, and not the *magnitude* of the premiums, has called out the greatest number of competitors; and whether the means of the several southern counties are concentrated, or whether they are left to the disposal of the county societies, this is a point that should not be overlooked.

In making these remarks, we are influenced only by a desire that our farming friends in the southern counties should expend the bounty of the State in a manner that shall the most effectually promote the interests of agriculture. For this cause, the Institute has already done much; with the means placed at its disposal by the State, it will do more; and should the managers of the county Societies, after proper deliberation, conclude to accept the proposition of the Institute, the Fair of October we venture to predict will be an exhibition hitherto unrivalled in this country.

The Filbert.

In a late number of that excellent Journal, the Boston "Magazine of Horticulture," &c., there is a paper by Mr. Downing of Newburgh, N. Y., on the cultivation of this nut. From the great quantities annually imported, there can be little doubt a ready market would be found for the product of a filbert garden or orchard, and the ease and certainty with which they may be grown, should recommend them to favor.

Mr. Downing recommends a soil naturally dry rather than moist, but a dry gravelly loam, or sandy loam is preferable. They will succeed however, in any good soil. The kinds preferred by Mr. D. for cultivation in this country, are the Cosford, Frizzled, and Northampton Prolific. There are other varieties, but these have been well tested, and will abundantly repay the grower. The cultivation of such nuts is a great object in some parts of England, and the average crop is considered about 800 lbs. per acre, though at times, when the soil and season is favorable, more than three times that quantity have been gathered.

Killing Canada Thistles.

Mr. Chapman, of this city, (Albany,) informs farmers,

"That if they will cut up the Canada thistles one and a half inches below the surface of the ground, and pull them up with the left hand as they cut them, in the full and old of the moon in May, June, July, August, and September, they certainly will destroy them; they may miss some in going over the ground, even the first, second, or third time; but be sure to look your ground over every old and full moon, till you know you have destroyed them. I have destroyed more than fifty thousand the last two years, and now there is not one growing on the ground I have been cutting them from."

We have great faith in the course recommended by Mr. Chapman, as we have frequently destroyed small patches of the thistle ourselves by repeated cuttings or pullings in a single season. But we paid no attention to the moon, and have not a doubt the process would be just as effectual if performed in the new, as in the old of the moon. If plants are not allowed to form leaves, or in other words are not allowed to respire or breathe, they must die, and this prevention is not influenced by the old or the new moon. Farmers who find the thistle just taking possession of their lands, cannot do better than to cut them frequently by hand; where there are acres of them, repeated plowings or thorough summer fallows must be resorted to for their destruction.

The Dahlia.

We have received from the Messrs. Prince of Flushing, Long Island, a catalogue of their magnificent collection of Dahlias, amounting to some 450 varieties, embracing all the most celebrated and choice kinds cultivated. This beautiful flower, brought from Mexico, and of but recent introduction into the gardens of Europe, bids fair to rival, if not to eclipse the Rose and the Tulip, that have so long held possession of the throne of beauty among the flowers.

The dahlia is easily cultivated, and shows a profusion of flowers from June to October, making it in that respect, one of the most desirable of the flowering plants. As the plant in a rich soil grows to a large size, and requires to be supported, they should be planted at three or four feet from each other, that they may not be crowded at the time of blossoming. The dahlia would be more common than it is, were it not that considerable difficulty has been sometimes experienced in preserving the roots through our winters. The following directions of the Messrs. Prince, will perhaps obviate this evil. They say—

"Our practice in wintering dahlias is exceedingly simple. As soon as the frost has killed the tops, we cut them off and take up the roots, and then dry them for two or three days in the sun, after which we place them on shelves in a cellar, perfectly dry and free from frost, where they remain until the period for spring planting. Moisture is destructive to them, and in a damp cellar or room they are liable to rot; but in a dry one, not a single one will be injured, if it is kept free from frost."

The culture of flowers is one of the most innocent and delightful of recreations, and we should esteem ourselves fortunate, could we aid in diffusing a taste for these beautiful productions of nature.

Henrico (Va.) Ag. and Hort. Society.

We perceive by the Richmond papers that this Society held its first Fair at Godden's Spring a few weeks since, and that the meeting went off in the best manner. The Society was formed only some three months since, and seems to have sprung up at once into a most vigorous and healthy existence. The place selected for the meeting, was a beautiful one; the day was fine; the concourse of spectators, particularly ladies, great; the competitors for the liberal premiums offered, numerous; the address of the right kind; practical and common sense; and the whole proceedings harmonious and gratifying. Premiums were awarded on the following articles:—Domestic Silk, Luxuriant Flowers, Fruit, Horses, Jacks, Domestic suit, Plows, Cutting Machines, Corn Shellers, Wheat Machine and Fan, Domestic Wine, Milch Cows, Bulls, Heifers, Boars Sows.

The amount of stock exhibited, was great, and some of the animals very fine. There were quite a number of competitors for the premium on domestic wines; and several superior samples were exhibited. If wine must be drank, we think it will be much better to make it ourselves, and use it pure and unadulterated, than to quaff the noxious compounds which are too frequently offered to the public as wine. The quantity of wine made in Ohio, according to the census, (about 6,000 barrels,) far exceeds what we had supposed possible; although aware that the Swiss and German emigrants had in many instances entered into the culture of the grape and the manufacture of wine.

Old Virginia is a noble State; her soil is excellent; her climate mild and salubrious; her facilities for trade, manufactures, and navigation, great; and if her sons will awake to the importance of her agriculture, if they will form such societies, and give them the life and spi-

rit of the Henrico one, and some others now existing in that State, and above all, if they will inculcate in all classes the idea that honest industry and labor is always honorable, she will soon find her population rapidly increasing, and cease to feel the drain that by emigration removes the bone and sinew of the State, to fill up the new States and territories of the broad West.

Culture of Corn.

In a late number of the Hamilton Intelligencer, Ohio, is a valuable article on the cultivation of this great staple of the West, (and which is scarcely less essential to every part of the country where it can be grown, being, in the language of Mr. Taylor, meat, meat, and meadow,) from the pen of J. McMillikin, Esq. The substance of his experience and observations, he has summed up in the following rules, which, marked as they are by good sense, we feel a pleasure in transferring to the columns of the Cultivator :

"1. If the ground intended to be cultivated in corn has a sod upon it, it should be broken up in the fall or winter preceding if the weather be suitable, if not it should be plowed in February, or at least in March. If not level, it should be rolled, and if not mellow it should be harrowed before planting.

2. If stubble or corn ground, no stubble or stalks should be removed, unless taken to the manure pile—should be plowed six inches deep, and if not mellow should be harrowed.

3. While small, the corn should be harrowed, and the ground should afterwards be kept loose and mellow by the repeated use of the cultivator.

4. On sod ground a plow should never be used in the cultivation of corn.

5. On other ground, the plow should never be used after the roots have extended any distance from the hills, and at no time unless indispensably necessary to prevent the ground from baking.

6. The fibres or small roots of the corn should not be cut; the cutting off of every fibre deprives the stalk of some part of its nourishment.

7. The earth should not be thrown high upon the hills, as it induces the throwing out of additional spur roots. A very slight portion of mold may be placed around the hill.

8. The ground in the cultivation of corn should be kept as level as possible, to permit the roots to extend in every direction, and to retain moisture. Ridging cuts the roots—prevents the extension of the surface roots—drains the water from the hills—exposes more surface to the action of the sun, and is therefore injurious to a crop in a dry season."

We are glad to see the attention of farmers turned to the corn crop, and the best method of cultivating it; for its importance can hardly be overrated, and what we deem some very absurd and injurious practices are common in its treatment. As far as Mr. M.'s rules go, they have our hearty concurrence, and there is little doubt if generally adopted, the corn crop would be materially increased. The plan of plowing up land intended for corn in the fall, we know to be a good one, as frost is one of the most efficient of pulverizers, and the soil in the process receives a more perfect aeration than it would if turned over immediately before planting. But before the plowing, the ground should be covered with long manure, since it is a fact which should never be lost sight of by the corn grower, that corn is one of those crops that cannot be fed too high. There are some soils too, which being naturally moist, and having never been drained, would if planted on a level surface, or without being ridged, prove too wet for the young plants, although not perhaps so, when farther advanced; but on a soil well drained, and in good condition, ridging or hilling is useless, or even worse than useless.

Perhaps there are few opinions more intrinsically erroneous than the one which supposes the corn plant to be benefited by mutilating the root, which have obtained a wider credence than that. It is directly at variance with every well established principle of vegetable physiology, and is opposed by the experience of multitudes of the most successful corn growers in the country. Liebig, in his invaluable work, asserts, and no one can controvert his position, "That the size of a plant is proportioned to the surface of the organs which are destined to convey food to it. A plant gains a new mouth and stomach with every new fibre of root, and every new leaf." But the notion in question, supposes that the best way to make a plant flourish is to destroy all its mouths, and compel it to form new ones, if nature is competent to the process. Corn is always benefited by frequently stirring the ground, and as plowing does this, the advantage conferred has by some strange process of ratiocination, been supposed to be the result of cutting the roots.

It has become a common practice with some of the most skillful farmers in the New England States to seed down their corn ground with clover and other grasses, the seeds being sown and covered at the last time of hoeing. In doing this, hilling would be impracticable, and the object with the farmer is to have the ground left as level and smooth as possible. Experiments carefully conducted, show a decided advantage in favor of level culture over hilling, and we have never heard an instance in which the soil was in a good condition in which the culture without hilling failed. The idea that hills are necessary to support the corn, is without any real foundation. Nature provides for this emergency herself, in causing sets of brace roots to shoot out, as soon as the plant requires them.

It is not probable, such has been the unfavorable state of the season in its early part, that a great crop of corn will be grown the present year; still where the culture has been good, and proper seeds have been selected, a fair reward for labor may be expected. In the cultivation of plants, no glaring departures from nature can be tolerated; we may improve, but we cannot control, and all attempts at such unwise interference, will be defeated. Manure highly, plow deep, make your land dry, use none but good seed, keep the surface frequently stirred, and you may safely leave it without any inequalities, and permit the roots to dispose of themselves as they think proper.

Blight or Mildew in Wheat.

There are very few years in which millions of dollars are not lost to the farmers of the United States by Mildew or Blight, and this fact is sufficient to justify the most anxious care to discover the cause of the disease, and a method of prevention. That the mildew or blight is a fungus or parasitic plant, is well known to all who have paid attention to the subject, but as it never fixes on a plant in a sound healthy condition, the cause of the disease which invites it, is the real question at issue. This subject, in consequence of the damage it has occasioned to the crops in Pennsylvania, within a few years, has of late attracted much attention among the practical and scientific farmers of that state, and several papers on blight have been read before the Philadelphia Society for the promotion of Agriculture. Two of these have fallen under our notice; one by Kenderton Smith, Esq. and the other by James Gowan, Esq. Both are papers exhibiting much acquaintance with the subject, are written with ability, and a short notice of them, showing the opposite conclusions at which they arrive, may be useful.

Col. Smith's paper, which created no little sensation at the time it was published, attributes the great prevalence of mildew to the practice now so prevalent (and which, if not objectionable for the cause stated, so important to the farmer) of sowing grass seeds upon wheat, or in other words by an effort to secure two crops at once, putting the safety of the most valuable in great danger.

Col. Kenderton Smith says,

"The matted coat of grass when thoroughly saturated in moist seasons, by impeding the sun's rays causes an excess of moisture in the soil, and preserves the earth at the root of the grain too cold and wet to maintain a healthy vegetation of the plant at its near approach to maturity. * * * This checks and renders languid the circulation of the sap at the very time when nature indicates that not only the *stalk* but the *soil* should be basking in the heat which prevails at that season of the year."

Mr. Gowan dissents from this opinion in toto, and insists that the grass has no influence in producing mildew, but that on the contrary to a certain extent it operates as a preventive. He says—

"I hold that the prevailing cause of blight in this country is owing to the *sudden heat and cold* to which the wheat is often exposed in June and beginning of July—and this I will attempt to explain. The wheat plants at the period of filling, naturally send up or yield most generously the juice requisite to furnish the heads with seed or grain. This process will be more or less accelerated by the action of the sun, in proportion as he is mild or intense. If the heat be great and of two or three days continuance, the plants will be greatly excited. In this state, should the sun suddenly withdraw, the wheat exposed to a merciless N. W. or N. E. that sinks the temperature instanter some 30°, the chilling cold of which no instrument can fully represent, animal and vegetable life being only capable of realizing it—is it to be wondered that so sudden a check to the pulsation of the excited wheat plant should prove fatal to them? The cold winds blowing on the head and neck of the plant, chills it at the very point of exposure, the head becomes languid or torpid, while from the density of the plants and the heat of the earth, there is a genial heat and moisture below—the fountain that supplied the head keeps bubbling up and flowing on, but the functions of the head reservoir, or condenser, have ceased; it can take no more; in such a case the fountain or conduits must burst; both or either do, and hence the rust that is observed on the plants, which is but the outward sign of the disease that is preying on the vitals within. After a lapse of a day or days the sun returns and blazes on the diseased head, which having neither health or moisture in it, cannot but wither and die under his influence. *This, then, is the prevailing cause of the blight of wheat in our climate.*"

Who shall decide when doctors disagree? May not these antagonist writers both be partly right, and both partly wrong? Both agree that there must be a great degree of heat, both that there must be an excess of moisture to produce blight, both that there is a forced and unnatural vegetation, and so far they are doubtless correct. Col. Smith maintains that the 'matted grass' keeps the soil cold and wet; Mr. Gowan that this covering preserves a 'genial heat and moisture,' and here, of course they are as wide apart as the poles. If this covering of grass produce cold in the soil, it must be by evaporation; but evaporation from a covered surface proceeds so slowly that such an effect is rarely if ever produced. On the contrary such a covering of grass preserves the temperature of the soil, by preventing both radiation and evaporation, and here, we think, Mr. Gowan is right. But if, as all appear willing to concede, the disease arises from too great an accumulation of vegetable juices in the vessels of the plant, caused by heat and moisture, the two grand agents of all vegetable growth, then a reduction of temperature at the root of the plant would be the most effectual means of checking this accumulation, and for this purpose a free circulation of air, and a clean surface, admitting of both radiation and evaporation, would be most efficient, and here, we think Col. Smith comes nearest the mark.

We have, in the course of our farming, experienced the bad effects of blight to a considerable extent, and have hence been induced to examine the subject with more attention. A few years since a field of sixteen acres of beautiful wheat was so injured, that it was not worth the labor of cutting: it was, in fact, totally destroyed. In this case, and in all others, where our wheat has felt the blight, the attack has been preceded by warm, close, sultry, weather, with frequent showers, and every circumstance favorable to a rapid vegetation. The vessels of the plant were evidently unnaturally excited and pressed, and at the same time the continued moisture softened the still tender cuticle or covering of the stem, and lessened its powers of resistance. The microscope shows that in this state the covering bursts or cracks longitudinally, the partially elaborated juices escape, and these, it seems to us, furnish a nidus or place of reception for the minute seeds of the fungi, which always accompanies blight, and the seeds or sporules of which constitute the red powder or rust always found on wheat that is blighted.

Atmospheric agencies have a great influence, doubtless, in causing this disease of wheat, but we have not been accustomed to attribute so much effect to changes of temperature as does Mr. Gowan; and it struck us as not a little singular, that while the first half of his paper is devoted to proving that sudden changes of temperature are the cause of this evil, the last part should be an argument to prove the frequency of this disease in British wheat, a country where the climate is more equable, the range of the thermometer less, and the changes less sudden and extreme than in almost any other.

But we do not believe that sowing grass seeds with wheat, or the most sudden and extreme changes of temperature, will always produce blight, or that a perfect freedom from all plant will always exempt it. Experience negatives this position. The sixteen acres of wheat above alluded to was not sown with grass seeds, yet it was lost; and the tens of thousands of acres annually sown with wheat and clover satisfactorily shows that something besides 'matted grass' is required to cause blight.

Wheat, early sown, on soils naturally dry, or made so by draining, we have found to escape blight more certainly than any other. It has usually passed the stage in which mildew commences, before the season arrives in which the causes of that disease are most active. On the contrary, late sown wheat does not come forward until the hot sultry heats of the summer have come on, and these when combined with moisture are most sure to produce mildew. Wheat that is winter killed badly, is frequently so much retarded as to be overtaken by mildew and rendered worthless. If one part of a field or neighborhood is lower than another, the lowest part usually suffers most. Wheat highly manured, especially if sown late, rarely escapes being more or less blighted; and for this reason, fresh or unfermented manure should not be applied to the wheat crop.

In England, in districts subject to blight, it is customary to sweep the wheat fields, while the crop is in the stage most liable to its attack, with a rope carried by two men, and as long as the width of the lands, or the labor of carrying will permit. The rope drawn in this way agitates the grain, and causes the superfluous moisture to be dislodged from the stalk and head, thus preventing that softening which would ensue if the moisture was allowed to remain. This "roping of wheat" is sometimes repeated several times in the season, particularly if the weather is favorable to the development of the mildew, or symptoms of the disease exhibit themselves in the grain. It has been found by experiment, that if the grain is so far advanced as to be fully in the milk at the time of the attack, that if the grain is cut at once, and is cured in a proper manner, the grain will be far better, and make better flour, than if allowed to stand. When cut in this way, the stem contains as much elaborated sap nearly as the perfection of the grain will require, but if this is allowed to escape, as it will if the disease progresses, the berry will be deprived of all its proper nourishment, and the consequence will be a shriveled worthless grain.

The conclusions at which we have arrived respecting blight, are as follows:

1. That an excess of sap hurts the skin or epidermis of the plant, and by allowing the juice necessary to the perfection of the berry to escape, causes it to shrink.

2. That in this extravasated juice the sporules of the wheat fungi, fix themselves, their roots penetrating the stem and thus increasing the evil, while their speedily matured seeds, shed over the grain, give the red appearance so characteristic of mildew.

3. That blight rarely attacks wheat unless a degree of temperature above 70° has for several days been indicated, accompanied by a great quantity of moisture, and a stagnant condition of the atmosphere.

4. That late sown, or highly manured wheat, is more liable to the blight than that which matures early, or that grown on soils where the manure has been applied to some previous crop.

5. That while a thick coating of grass, by preventing a free circulation of air around the plant, equalizing the temperature, and freeing them from useless moisture, has a tendency to produce blight, it will not do so, unless the other predisposing causes we have enumerated, are also present.

6. That the sowing of clover and grass seeds with wheat is of so much consequence to the wheat grower, is such an essential means of fertilizing the soil, and such an important part in a well conducted rotation, that it ought not to be abandoned, except on the clearest evidence, such as we think has not yet been produced, that it is the primary cause of blight, and certainly not until other means of prevention have been tried and failed.

New-York State Agricultural Society.

THE regular meeting of the Executive Committee of the N. Y. S. Ag. Society for June, was held at the Troy House in Troy on the 16th,—the President in the chair. Present, Messrs. Walsh, Vail, Nott, Bement and Tucker, members of the Committee, together with a numerous attendance of the members of the Society in that vicinity.

Letters were read from Messrs. H. S. Randall, H. Munson, John H. Beach, Charles F. Johnson, A. Bergen and Jabez Burrows.

New members were admitted to the Society as follows:

ANNUAL MEMBERS—[*Paying $1 per year.*]

Adams, Myron, E. Bloomfield.	Kellogg, Day O., Troy.
Beach, John H., Sar. Springs.	Lawrence, Wm. T., ($5) Cayuga.
Beach, Wm. A., do.	taville.
Belden, Dennis, Troy.	Lyon, Charles, Ogdensburgh.
Bergen, Adrian, New Utrecht.	Merritt, I. J., do.
Burrows, Jabez, Mayville.	Miller, John, Harmony.
Corey, John A., Sar. Springs.	Osborn, J. F., Port Byron.
Cowen, P. H., do.	Parker, S., Troy.
Cummings, Franklin, Troy.	Perry, A. S., ($2.00) Troy.
Dater, Jacob, do.	Pumpelly, George L., Owego.
Dauchy, Charles, do.	Richards, Albert, Troy.
Farrington, Thomas, Owego.	Richards, George B., Troy.
Fassett, John V., ($2,00) Troy	Sackrider, Norman, Norfolk.
Gifford, Henry, Harmony.	Sage, Norton, do.
Gould, John, Essex.	Sampson, John, ($2,00) Troy.
Harris, Heman, Troy.	Slocum, Hiram, do.
Hart, J. B., do.	Tuttle, N., do.
Hart, W., do.	Warren, Jos. M., do.
Johnson, Charles F., Oswego.	

GEO. VAIL, Esq. of Troy, one of the members of the Board, made a donation of $25,00 to the funds of the Society.

The following committees were appointed to solicit donations and new members to the Society:

For Troy and vicinity—Messrs. John Sampson, Geo. Vail, D. O. Kellogg, J. H. Willard. I. J. Merritt, and A. S. Perry.

For Lansingburgh—Messrs. A. Walsh, P. M. Corbin and J. Holme.

For Waterford—Messrs. John House, John Knickerbacker, W. B. Douglass and J. Strachan.

For Watervliet—Messrs. Thomas Hillhouse, E. Wiswall, Jr., and C. F. Crosby.

Mr. Tucker introduced the following resolutions, which were unanimously adopted:

1. *Resolved*, That the Corresponding Secretary be authorized and requested to open correspondences with such individuals as he may deem proper, in the several Counties of our State, for the purpose of eliciting information on the following points:

The present condition of agriculture in each County, with such changes as have already taken place since the period of their first settlement—Aspect of the county—Nature of the soil—What are the principal products?—Where are the products marketed?—What kinds of cultivation are in use?—What are the favorite breeds of horses, cattle, sheep, swine, &c.?—How are the stock generally fattened for market?—What plows, harrows, and other agricultural implements are in general use?—What is the general value of the land?—What kind of timber generally prevails?—What agricultural changes are requisite to advance the prosperity of the county?

2. *Resolved*, That the Corresponding Secretary be authorized and requested to open correspondences with such individuals as he may deem proper, for the purpose of eliciting information on

The most profitable breeds of cattle, sheep, horses, swine, &c., for our country—The best and most economical method of rearing them—Their diseases, and the method of treating them—The most profitable varieties and best method of cultivating the several varieties of grains and roots—The best and most profitable method of making butter and cheese—The most economical method of fattening domestic animals—The best and most economical method of wintering domestic animals—The cultivation of fruits—Horticulture—The most profitable grasses—Draining—Rotation in crops—Manures—Diseases of plants, and the remedies—Destruction of noxious weeds, &c.—Construction and management of farm out buildings, yards, &c.—Fences.

3. *Resolved*, That the Corresponding Secretary be authorized and requested to open correspondences with such individuals as he may deem proper, in the United States and Europe, for the purpose of eliciting information on such agricultural subjects as may be of value to the farmers of our State.

4. *Resolved*, That the Finance Committee be requested to address a Circular to the friends of Agriculture in this State, setting forth the importance of the objects for which the N. Y. State Ag. Society was formed—its inability to accomplish those objects, or any useful purpose, without the aid and co-operation of the farmers and the friends of agricultural improvement generally, and the consequent necessity of an appeal to them to extend their aid to the Society by connecting themselves with it, either as annual or life members, or by contributions in aid of its funds.

Mr. Bement laid before the Committee a communication from Solon Robinson, Esq., in relation to a convention to be held at Washington, to form a *National Agricultural Society*; whereupon.

Resolved, That the object is one of paramount importance, and the executive committee earnestly recommend it to the friendly consideration of the members of the New-York State Agricultural Society.

Mr. Bement also presented for the inspection of the committee, a *Probang*, on an improved principle, manufactured by Mr. ————, an ingenious mechanic residing in the vicinity of Albany. Every grazier or breeder of cattle, or at least every neighborhood should possess one of these useful instruments, whereby the lives of many valuable animals may be saved. Therefore

Resolved, That the thanks of this committee be presented to Mr. ————, for the introduction of this very valuable instrument, and that we recommend it to the notice of farmers.

On motion of the President,

Resolved, That the Executive Committee of the N. Y. S. Ag. Society will hold their next meeting at Niblo's, in the city of New-York, on Wednesday, the 21st of July, at 10 o'clock, A. M., and they cordially invite and earnestly entreat the friends of Agriculture in the river counties to meet with the Committee at that time and place.

Resolved, That JOHN MILLER, Esq. of Harmony, be appointed one of the General Committee for the County of Chatauque, in place of Mr. Crooker.

THE STATE FAIR.—The following is an extract of a letter from H. S. Randall, Esq. the Cor. Secretary:—"Please communicate to the Board that I have conferred with several influential citizens of Syracuse, on the subject of the State Fair being held at that place, and I have received their assurance that the citizens of the village will take it upon themselves to make all the requisite preparations, by the erection of pens and enclosures; providing rooms for the exhibition of products, &c. to make the accommodation of visitors ample and complete. The selection of this place, seems to give general satisfaction, and I have received the most gratifying assurances from *western* gentlemen, (and among others the conductors of the New Genessee Farmer,) that that important portion of our State will be properly represented. With proper exertion we shall have a Fair that will do credit to the Society and to the State. Every county organization should take the matter in hand, and be properly represented; and every man possessing unusually valuable animals, products, &c. should make up his mind to *present them*. These of course, will *all* be suitably mentioned, even where they fail to draw prizes, and it will afford an opportunity rarely presented, to dispose of them, in the concourse of judges, amateurs, &c. which the occasion will call together."

N. Y. County Agricultural Societies.

CAYUGA.—The meeting to organize a Society for Cayuga, is to be held at the Western Exchange, Auburn, July 22, at 11 o'clock, A. M.

GENESEE.—This Society hold its next Fair at Alexander, Oct. 13 and 14.

LIVINGSTON.—A meeting was called for 1st inst. to organize a Society for this county.

MONROE.—The annual exhibition of this Society is to be held at Rochester on the 15th and 16th days of October next. Its list of premiums we have not seen.

OSWEGO.—We have received the list of premiums to be awarded by this Society at their next Fair to be held at Oswego, Oct. 6, 1841. The prizes, though small, are numerous, amounting to over a hundred, and well calculated to draw out a general attendance at the Fair. The officers of this Society for 1841, are

ALVIN BRONSON, Esq., President.

Samuel Allen,	Vice	C. S. Phelps, Rec. Sec.	
Thomas Linley,	Presidents.	Joel Turrell,	Executive
R. L. Lawrence, Treasurer,		Wm. Ingell,	Committee.
E. C. Clark, Oswego, Cor. Sec'y.		Martin Willse,	

RENSSELAER.—A meeting is to be held at the Court House in Troy, on Thursday the 8th of July inst., at 10 o'clock, A. M., for the purpose of organizing an Agricultural Society for this county.

English Turneps.

THE common turnep, usually called the English or flat turnep, to distinguish it from the Swedish or ruta baga, is a valuable root, and better adapted to the table than any other turnep, and is consequently deserving a place on every farm. There are many varieties, of which the Norfolk and Globe are as productive as any, while some of the smaller kinds, among which the long turnep holds a prominent place, are best for cooking. The soil best calculated for the turnep is a rich mold abounding in vegetable matter, and newly cleared lands are found to be admirably adapted to their growth, the soil being usually free from weeds, and the ashes made by burning being one of the best dressings that can be applied to turneps. Where such lands are not to be had, old grass land carefully turned over and rolled, and then the surface made fine by repeated harrowing, for the reception of the seed, are found to produce good turneps. If the soil is not rich, good compost manure should be spread on the surface and harrowed in, but as old grass lands in richness partake somewhat of the quality of new soils, manuring is rarely necessary, and in the decaying sward the vigorous tap root of the turnep finds ample nourishment.

Turneps may be sown broadcast or drilled, the latter being the preferable way, and if a little bone dust or poudrette is drilled in with the seed, the plants start more vigorously, and are sooner out of the way of their most formidable enemy, the fly. There is usually far more seed sown than is necessary, if equally distributed, and to facilitate this, mixing the seed with ashes or sand is practiced by many farmers. English writers state the quantity of seed required per acre at two pounds, but we know by experience that one-half this quantity of good seed on proper soils is better than the whole, and were the distribution perfect, one-fourth this quantity or half a pound would fully seed an acre. It is better, however, to err on the safe side, and sow too much, rather than too litle seed, as if too thick the young plants may be hoed or pulled out. The proper time of sowing will, of course, vary with the latitude. In New-York, the best time has been found to be from the 20th to the 27th of July; in the middle and southern part of Pennsylvania, from the last of July to the middle of August; and in Virginia, from the middle to the last of August is preferred. The turnep, when grown on land long cultivated, is apt to have the bulb attacked by the worm, but in virgin soils, or those rarely subjected to cultivation, this evil does not attend them. Dressings of soot and ashes have been found useful when they are attacked by the fly, and in any event such dressing operates favorably on the plant, and may therefore be beneficially employed where there is the least reason to apprehend danger.

There are but few varieties of the turnep, that can, in our country, be preserved for the winter food of animals. The Yellow Aberdeen is an exception, as like the ruta baga, it keeps well in pits or cellars through the winter. The common turnep, though sweet and nutritive, contains so much water, that when taken from the ground they soon become pithy, and are of little value, comparatively, for cooking. They should stand in the ground as long as they can be permitted to do so in safety, as frosts improve them, and when gathered, should be kept in cool cellars or pits, merely above the danger of freezing, which, after they are taken from the earth, spoils them at once.

Spots on the Sun.

SOME wiseacre, in Boston we believe, has discovered there are spots on the sun, and many are disposed to attribute the cold and wet season we have had, to this cause. Some have even gone so far as to predict that we shall have no corn, and that late sown grain can hardly be expected to ripen, or come to maturity. We hope our farming friends will suffer no anxiety on account of these spots on the sun. We have for years been in the habit of looking at the sun occasionally, and it is very rare indeed to find it free from spots. Some of our best seasons have been those in which spots were the most abundant; and the same has been observed to be the case in Europe. The probability is, that they produce no effect whatever on our seasons, but that the differences we experience, are entirely owing to other causes. The presence of so much ice in the Atlantic, is much more likely to produce N. E. storms and cold seasons, than spots on the sun. Every thing now indicates a prosperous year for the farmer; and if any had concluded to not hoe their corn for fear the spots were going to hinder a crop, they will do well to reconsider their decision, cultivate their crops carefully, and let the spots on the sun take care of themselves.

Effect of a wet Subsoil on Trees.

No man should undertake to plant ordinary forest or fruit trees on soils tenacious of water, until they have been fully drained. Trees may live on such soils, but they can never flourish, nor will fruit from trees so situated, ever be equal in size and flavor to that grown from trees where the ground is properly prepared. Some years since, a gentleman at Seneca Falls wished to plant his grounds with ornamental trees. The soil was a deep clay, very tenacious of water, and several of his first efforts entirely failed, nearly every tree perishing. The holes were dug large and the trees well set, but it was found that the holes acted as mere basins or reservoirs filled with stagnant water. To remedy this evil, he had drains dug in such a manner that the holes for the trees were kept free from all surplus water, and as a necessary consequence, the next planting of trees succeeded to admiration. We see in a late number of the Boston Cultivator that Mr. Phinney of Lexington, well known as one of the most skillful farmers in this country, who has about six hundred bearing apple trees of the finest grafted fruit, has been obliged in establishing his orchards, in some instances to have recourse to thorough draining the soil, and always with the best success. Mr. P. makes his drains from two to three feet deep, according to the nature of the soil, leaves a water course of about eight inches covered with flat stones, on these brush and briers are thrown, and the whole filled in with the earth thrown from the ditches.

There can be no doubt that a regard to this subject, wherever trees are to be planted, whether for use or for ornament, especially *if* the subsoil be a tenacious one, would prevent many failures and disappointments, and in fruit orchards add great value to the product. A sound, healthy soil, is necessary to the health of a tree, and particularly to transplanted ones. Every one acquainted with hard, tenacious subsoils, knows that where trees grow naturally upon them, the roots never penetrate this cold wet substance, but are spread near the surface, and when blown down by the wind, their roots exhibit a thin shield like form wholly unlike those of a tree in a deep and permeable soil. If trees must be planted on soils of this nature, let nature herself be imitated; and instead of forcing the roots *into* pits or pools of stagnant water, as all mere holes *in* such earth must be, let them be spread over the surface as much as may be, and the holes and covering be proportionably shallow. But the best way in this case, as in all others where such soils are to be cultivated, is to drain first, and then plant or till afterwards.

CANADA THISTLES.—J. B. DEAN of Tompkins Co., informs us that a friend of his killed a "patch" of Canada thistles at a single mowing, and on turning to his farm book, found that the mowing was done the 24th of July "while the moon was in the last quarter, and the sign of the zodiac was in the heart," and by repeating the experiment at the same time of the moon, &c., he had succeeded in eradicating the thistle from his farm. [Our opinion of the influence of the moon in killing thistles, may be seen in another part of this paper.]

Chemical, or Prepared Manures.

It is sometimes asked, and that too in a way indicating a belief that the question cannot be satisfactorily answered, what are the advantages that science has conferred on Agriculture? more than intimating that knowledge, so essential to all other pursuits, is of no value to the farmer. It is a sufficient reply to all this, to simply point to the articles named at the head of this paper; chemical, or prepared manures. For the present we shall confine ourselves to a single class, those derived from urine and night soil, or of which these furnish the most important part.

It may be said that the use of night soil has been known from the earliest ages as a manure. This is true, but its use has always been limited, owing to prejudices arising from its disagreeable nature, and its offensive odor. The celebrated Swedish chemist, Berzelius, was among the first to call the attention of moderns to these substances by his analysis of them, which gave the following results:

Night Soil, 100 parts.		*Urine, 1000 parts.*	
Water,	73.3	Water,	933.00
Vegetable matter and animal remains,	7.0	Urea,	30.10
Bile,	0.9	Sulphate of potash,	3.71
Albumen,	0.9	Sulphate of soda	3.16
Peculiar and extractive matter,	2.7	Phosphate of soda,	2.94
Salts,	1.2	Muriate of soda (com. salt,)	4.45
Insoluble residue,	14.7	Posphate of ammonia,	1.65
		Muriate of ammonia,	1.50
		Acetate of ammonia, Animal matters,	17.14
		Earthy phosphates and Fluate of lime,	1.00
		Silica and mucus,	0.35

The intelligent farmer will see at a glance that the matters enumerated in these tables constitute most efficient fertilizers, and in spite of their repulsive nature, the Flemish farmers have long been in the habit of mixing these stercoraceous matters with water, which, applied with much labor to their fields, gave a fertility unknown to the rest of Europe. Some 28 years since, Davy suggested to his countrymen, the English, that night soil was a very powerful manure, liable to decompose, soluble in water, and in whatever state it is used, furnishes abundant food for plants. He found, by experiment, that quick lime destroyed the disagreeable smell, and ascertained that it might be dried, pulverized, and delivered by drills at the time of sowing the seed. The manufacture from night soil of the valuable manure, called *poudrette*, belongs to the French. Nearly 40 years since, a chemist, M. Bridet, obtained a patent for his *poudre vegetative*, manufactured from the cesspools of Paris; and such was his success that similar manufactories were erected all over the country, particularly in the vicinity of the large cities, so that what was once a nuisance, is now deemed of the greatest value.

In 1814, the French Royal Society of Agriculture granted a gold medal to Madame Vibert Duboul, who obtained a patent for 15 years for her "Alkaline Vegetative powder." Her plan consisted in fermenting the most liquid parts of these matters, and mixing them with slaked lime afterwards, so as to form a powder much superior and more durable in its effects to common poudrette.

In 1818, the first manufactory of 'Urate' properly so called, was commenced near Paris, by the chemists Douat & Co., and the product was submitted to the examination and test of a committee of chemists and agriculturists, in which were included some of the ablest men of France. This committee reported that they had found the preparation so powerful on the dullest soils, that they recommended it should only be employed by skillful and discriminating farmers. On good soils, or in large quantities, it gave such a growth of straw as to be fatal to the maturity of the grain. The whole matter collected from the cesspools of Paris, is now converted into poudrette and urate, and is used by the farmers and gardeners principally within a circuit of 30 miles around Paris.

A new preparation called '*engrais animalize*,' or disinfected night soil, has recently been entered upon at Paris, and a large manufactory has also been established at White Chapel, near London. It is made by mixing the night soil with a considerable quantity of finely pulverized charcoal, and then drying the mass at a very gentle heat. Thus prepared it resembles the friable mold, rich and dark, of an old hot bed, and is totally devoid of smell. The English farmers, if we may judge from their reports and journals, are highly pleased with this manure, particularly as a dressing for turneps, giving them a quick growth at the start, which is of great importance with this root. There is another preparation called "Owen's Animalized Carbon," principally brought into England from the Baltic, one ton of which is considered equal to 25 bushels of crushed bones, while the cost is but little more than half as much. It probably differs little from the engrais animalize, except that it contains more carbon, and, of course, is a less powerful manure.

There is a chemical preparation called 'Seed Manure,' prepared by Messrs. Hodgson and Simpson, of Wakefield, England, the composition of which is a secret, but the base of it is, doubtless, urate, mixed with a portion of saccharine matter, ammonia, salt, and nitre. Their directions are as follows, and by following them Mr. Millburn and others have experienced the best effects on their crops:

"Dissolve 28 lbs. of this manure in a pail by adding water in small quantities stirring it at the same time, until the mixture is of the consistence of cream; it is then poured over the seed intended to be sown on an acre of land, and the whole repeatedly turned over, so that it appears one uniform mixture; the seed is then to be spread out thin, on the floor to dry, for ten or twelve hours, and mixed with a sufficient quantity of soot or any kind of ashes, to render it sufficiently friable or dry to be sown by the hand or by the drill."

Prof. Johnson in his valuable papers on manure, has the following remarks on these chemical preparations of night soil, particularly the carbonized class, which, when properly made, he seems to consider preferable to any other of its mixtures.

"The preparation of the Messrs. Pottevin of the *engrais animalize* at London, is the same as that of M. Payen at Paris. It combines, and succesfully too, the great object of driving off the water of nightsoil by a gentle heat, after all its gaseous matters have been absorbed, by mixing it with a portion of newly prepared carbon, in the finest possible state of division, than which, no known substance has such great powers of absorption of all gaseous matters like those which abound in, and impart the disagreeable odor of nightsoil. The presence of the carbon in the manure thus prepared, is valuable in two ways; it gradually combines with the oxygen of the atmosphere, forming in the state of carbonic gas, the food of plants; and at the same time, all the gaseous matters of putrefaction, with which it is saturated, are thus preserved, stored up, as it were, for the use of the roots of the cultivator's crops; nothing is lost, the emission of the gases from the slowly dissolving charcoal, being so gradual, as to be almost, if not entirely, imperceptible to the senses."

The justly famous preparation, called as above, 'Urate,' may be very successfully imitated by the common farmer who will take the pains to provide a reservoir or cistern for the preservation of urine, with which, when wanted for distribution with his seed, he must mix gypsum or plaster till the urine is absorbed, and the mass sufficiently dry to sow with the drill or by hand. This is one of the most powerful preparations on dry or sandy soils that can well be imagined, and is one of which every farmer may avail himself to a greater or less degree.

There are at the present time, two manufactories of *poudrette* and *urate* in the vicinity of New York; and there is most abundant proof that it constitutes here as elsewhere the most valuable class of manures. That such manufactories will become common in the neighborhood of our principal cities and towns, where alone the materials are to be found, as the value of such manures, both for their efficiency and portability are better understood, we have no doubt. Their use is rapidly converting the vicinity of the principal European cities into a garden, and the use of these materials which once constituted the greatest nuisances and were most productive of diseases, into manures, will not have a better effect on the soil, than on the health of those congregated masses of human beings.

Diarrhea in Colts.

In the Kentucky Farmer of May 22, is an article on the above disease, from the pen of Mr. Mentelle, from which we make the following extract. We do this, because the disease is not an uncommon one, and because a course of treatment is adopted, which proves injurious, if not fatal, to the animal. Harsh and active medicines in quantities which a horse would hardly bear, are employed, it being apparently forgotten that a colt bears the same relation to the horse, so far as the action of medicine is concerned, that the infant does to the man. We lost last year a very valuable colt from this disease, aggravated as we have reason to believe, by the treatment he received in attempting to cure him.

"As soon as the disease is evident, the mare and colt must be taken from the pasture if they were at grass, and their treatment must be different, according to the degree of appetite retained by the colt; if he eats or sucks heartily, give him cow's milk boiled with a little flour, and with warm injections of mullein, flax-seed tea, or slippery elm; if, on the contrary, the animal is without appetite, it is a sign that the evacuation is dangerous, and ought to be checked; give something more than a quarter of an ounce of assafoetida diluted in one of the above teas, which he must be made to swallow milk warm; besides which, he must have injections morning and evening until the disease seems to be checked, then suppress the evening remedies, and suppress them entirely, as soon as the colt is evidently better. It is more prudent to keep the mare out of pasture, and feed her on dry hay, &c. A careful attendant on the colt, will best know whether to continue the remedies or not. Mind that the mother's milk has a great influence on the colt."

Market for Cocoons.

"*State Prison, Auburn, N. Y., May 15, 1841.*

"The subscriber, as agent of said prison, having commenced the manufacture of Sowing Silk, by convict labor, will pay three dollars per bushel for all the cocoons of a good quality that may be offered at this prison, hereafter. Any communications upon this subject, addressed to the subscriber, (*post paid,*) from any part of the United States, will receive immediate attention. * * * Henry Polhemus, Agent."

This we consider an important announcement. If the project of manufacturing silk in the prison is successful, (and the experiment of last year warrants the most favorable anticipations,) it will be felt beneficially by the public in various ways; it will aid the mechanic of the country by giving a different direction to convict labor, it will benefit the small farmer by giving him a certain market for a product which his wife or children can raise with little time or labor, and it will benefit the country by lessening those importations which operate so injuriously against the trade and prosperity of the United States Some beautiful sewing silk has been made at the prison, and any information in regard to any branch of the subject, from the rearing of the mulberry trees through the stages of hatching, feeding, spinning and killing the cocoons, may be obtained at the prison of Mr. Morrison, who has a thorough acquaintance with the subject, having long superintended an extensive silk mill in Europe. One of the greatest obstacles to the growing of silk, (a fixed and certain market for cocoons,) being now removed, we may hope that the culture will receive the attention which it seems to us to deserve, as a sure and profitable branch of domestic industry.

Farming without Rum.

Whoever commenced the Temperance Reformation, was, in truth, a benefactor to the human race. From the highways and byways, from the borders of the abyss of degradation, if not from the depths of the abyss itself, thousands will rise up to call that man blessed, who has saved them from themselves. Great as are the talents of O'Connell, there is an unpretending priest, who is at the present moment doing more to elevate, disenthral, and regenerate Ireland, than a thousand O'Connells, without his aid, could have done. Wherever Father Mathew goes, the distilleries become useless, the pig gets an extra quantity of corn, the wife a new dress, and the laborer sheds his rags for a new coat, saved from earnings that formerly went to brutalize and impoverish himself and family. Scarcely less striking has been the result of abstaining from the common use of ardent spirits in the United States, and in no department of industry, has this influence been more beneficially felt than in that of agriculture. Of this no one, we believe, doubts, who has made the experiment of *farming without rum*, or in other words, banishing ardent spirits from his farming operations.

We are well aware there were thousands, in fact nearly every farmer in the country, who, when the idea of farming without the use of ardent spirits was first proposed, deemed it wild and visionary, if not impossible. So intimate had the associations of work and rum become in the minds of most men, that to separate them —to undertake to break in upon long established usage —to get in a harvest, or erect a building, without such drinks, required no little exercise of reason and independence of feeling. Many who were convinced the practice was useless, hesitated about abolishing it, lest the withholding spirits should be charged to a penurious disposition. Good sense, however, and a feeling of right prevailed; rum was banished from the harvest field and the raising, in numerous instances, and it was found that none of the injurious effects anticipated by many, followed. There was no want of laborers; the coarse grains still commanded good prices; and four or five distilleries in every town ceased to produce and distribute misery and death.

In those neighborhoods, and on those farms from which intoxicating drinks have been banished, those revolting scenes unfortunately once too common, are now no longer seen. We remember when it was the custom to find each laborer in the harvest field with his pint of spirits daily, that there was frequently more waste from the effect of the drink, than their labor cost. We have seen in the harvest field by the middle of the afternoon the reaper so *blue* that he was as likely to cut off his own fingers as the grain, and compelled to resort to a corner of the fence and a nap, to restore a capacity for work. We have seen half a dozen cradlers racing it through a wheatfield like madmen, yelping and yelling like savages, throwing the grain behind them without care or thought, and causing a waste greater than as many swine would have done, even had they been of the most approved alligator breeds. We have seen a dozen men reeling home from a raising to sleep away the liquor that had stolen away their reason, or, as was most likely, to abuse their wives and children. Now, where temperance principles prevail, such scenes are never witnessed; and their influence can be traced in the mitigation of these evils, even where they are not yet fully triumphant.

The proper source of ability to labor is found in food; this alone nourishes and confers strength. Ardent spirits give no nourishment; they only stimulate; and all experience proves, that all expenditure of power, not based on the true source of supply, can only be temporary, and must produce results the most injurious to the individual. The correct course, then, is to substitute the nutritive for the stimulant; healthful for the injurious; habits that too frequently end in ruin for those that are certainly safe and honorable.

If there is a single reader of the Cultivator, who has never made a trial of farming without rum, we ask him as a friend to make it thoroughly the present season, and then to judge for himself. The experiment is not now an untried and hazardous one; it encounters no opposing public opinion, nor subjects the farmer to the charge of eccentricity or niggardliness; and it is not one which might once have been considered as tampering with the health of the workingman. The man who labors must have food in abundance, and of the best kind; he must have drink too, but this should not be ardent spirit. Good home-brewed malt beer, milk and water, sweetened water slightly acidulated, and a little ginger added, are all good drinks, all contain nourishment, and will allay thirst, at least as effectually as ardent spirits. Discontinue rum and whiskey, and try these; take a biscuit and some cheese, instead of a drink of grog, forenoon and afternoon; eat your meals regularly, and labor reasonably, and our word for it,

you will find yourself in all respects as well, and your busines much more satisfactorily conducted, than when ardent spirits are used.

Weeds.

Every plant growing with a cultivated crop, and which has a tendency to lessen the product, or decrease its value, may with propriety be called a weed; even if one which possesses some importance in itself, and may under other circumstances be worthy of culture. The term weed, however, is usually applied to plants which are valueless, and which by growing with the cultivated crop, increase the labor, while they lessen its value.

Weeds are either annual and biennial, or perennial; or such as spring up from seed and come to maturity by ripening their seeds either the first or second year, or those that after once having been sown continue to propagate both by seeds and roots. Annual or biennial weeds, if the stem is cut before or at the time of flowering, are destroyed, since there are no remaining means of propagation; but in perennial weeds, or those propagated from the root, as well as the seed, the destruction of the stem does not ensure the death of the plant, as the power of propagation is still remaining. Of course the destruction of annual weeds is much more easy than that of perennials; although some of the former have such a multitude of seeds, and will remain so long without vegetating, unless the soil is cultivated, that the difference in labor is not so great as some have supposed. Perfect tillage is the best destroyer of all weeds, but various expedients, such as pulling out the annuals, and cutting off the perennials, are resorted to, in order to check or eradicate them. It cannot be expected that more than a few of each class can be named here, and such will be selected as are the most common and troublesome. It may be remarked that a reference to European agricultural works will show that some of their most injurious weeds are unknown here; that some we treat as weeds which they cultivate as valuable plants; and that some of the most troublesome weeds found in our fields, appear to be unknown there, at least are not found to infest their crops.

PERENNIAL WEEDS.

Johnswort—*Hypericum perforatum.*
Meadow Crowfoot—*Ranunculus acris.*
Daisy—*Bellis perennis.*
Canada Thistle—*Cnicus arvensis.*
Broad-leaved Dock—*Rumex obtusifolius.*
Couch or Wheat Grass—*Triticum repens.*
Ox-eye or White Daisy—*Chrysanthemum leucanthemum.*
Everlasting—*Gnaphalium.*

ANNUAL WEEDS.

Steen-crout, or Wheat Thief—*Lithospermum arvense*
Wild Mustard—*Sinapis arvensis.*
Common Chickweed—*Stellaria media.*
Wild or Climbing Buckwheat—*Polygonum convolvulus*
Burdock—*Arctium Lappa.*
Feverfew—*Pyrethrum inodorous.*

Johnswort, so well known to the farmer by its intrusion into meadows and pastures, and by its occupying almost the whole ground to the exclusion of all the valuable grasses, is one of the most common and pernicious weeds in this country. We know of no valuable use to which it can be put; all animals reject it, unless starved to feeding upon it, and it is a positive poison to such as are compelled to feed on it. It has frequently caused the death of young cattle and sheep. Johnswort may be killed by thorough tillage, seeding thick with grasses, and using plaster liberally.

Meadow Crowfoot, called also butter-cup and yellow daisy, grows in most parts of the country. The whole family to which it belongs, are poisonous, inflaming the skin and sometimes blistering it. If there is considerable grass with the plant, cattle eat it off without danger, and it seems to lose much of its acrid property when cut with grass and made into hay. It is easily destroyed by plowing and cropping, followed by again seeding.

The ox-eye or white daisy is a pestiferous weed where it is allowed to establish itself on a farm, crowding most of the valuable grasses, and being in itself of little use. It is most frequent in pastures, although seen in meadows, and can only be eradicated by tillage conducted in a proper manner.

The Canada thistle is most unfortunately so well known as to require no description. Spreading both by its long, creeping, vigorous roots, and by its seeds, it has spread over a very large part of the northern states, and promises to eventually occupy no inconsiderable portion of the remainder. It is one of the most difficult plants to destroy, as the roots throw out stems from each joint, and if any part of the roots are left undisturbed in the soil, they will at once spring up, and produce a numerous body of plants. On the best cultivated farms it is with difficulty kept under, and on those where spring grains are generally grown, and hoed crops and summer fallows are unfrequent, they spread with great rapidity. It prefers a rich moist soil, and on such is with more difficulty eradicated than on dry or less fertile ones; yet the roots are so tenacious of life, that on all, it is one of the most formidable of weeds. No half-way or temporizing measures will succeed with the thistle. It must be attacked vigorously, either by plowing, hoeing, or repeated mowing, and there must be no rest till it is destroyed root and branch. If one year's tillage, or fallowing, does not answer the purpose, give two; but it must be remembered that a single root left living will in a short time undo all that you have done, and fill the soil as before.

Broad leaved Dock is a bad weed, as it spreads rapidly when allowed to perfect its seeds, and it throws out such a mass of leaves that it occupies the ground almost exclusively. Fortunately its destruction is comparatively easy, nothing more being required than with a single blow from a sharp hoe, to cut off the plant below the crown, or at some little distance in the ground, and as it throws out no suckers from the roots, it is killed at once.

Couch, quack, or wheat grass, is a serious pest to the farmer, as it is very tenacious of life, throws out roots from every joint of its stem that touches the earth. Its roots too are creeping, and any part of them left in the land is sure to vegetate. Low says the most effectual method of destroying this weed, "is by frequent plowing and harrowing, and collecting the roots by the hand." In England where it is the worst weed of tilled lands, implements are used called grubbers, which pass through the pulverized soil, and bring out such roots of weeds as are below the surface, and thus enables the farmer to gather and destroy them. Couch grass is more easily destroyed in this way than some other weeds, as its thick fibrous roots causes them to adhere strongly together, and they are thus more easily collected.

The common Daisy is a very troublesome plant in pastures or meadows, and if left unmolested soon becomes a great nuisance. Tillage is the proper remedy, but as it shows itself in meadows too moist for a course of culture, previous draining in such cases is necessary. There is then little difficulty in extirpating it, particularly if a dressing of lime be given to the soil at the time of plowing.

Everlasting, or cotton weed, so called by some from the white down on its stems and leaves, is a plant that is rapidly scattered by its seeds when they are allowed to ripen, and a root once established in the soil progresses slowly, but surely, to destroy, we believe, every other plant or grass with which it comes in contact. On cultivated lands it does little or no injury but spreads in pastures most injuriously, unless pains are taken to cut them up so as to prevent their seeding, or digging them by the root, which latter course is preferable, as the cure if thoroughly performed is effectual.

Of the annual weeds, the one which produces the greatest injury to the wheat grower is the steen-crout or red-root. We have seen in Western New-York thousands of acres of wheat which would hardly give half a crop from the prevalence of this weed. It springs up early, grows rapidly, and its spreading thick top smothers and exhausts the wheat plant. The remedy for this nuisance is first to clean the land of all the red-root in it by thorough tillage, and then to sow none but pure seed. If a few stalks any where appear in a field, pull them up at once, and by no means allow any to mature their seeds on the farm.

Charlock or wild mustard on many farms abounds in all plowed lands and springs up in grain of all kinds. As this plant ripens its seeds and sheds them from its pods before harvesting, it is one of the worst of the annual weeds to eradicate. Hoed crops are useful in exterminating charlock, and on some farms in England wheat is sown in rows to give the crop the benefit of this clearing process. Summer fallowing is also good, if the plowings are repeated so often as to give an opportunity for all the seeds in the soil to vegetate, and be destroyed in succession. Its yellow flowers render it conspicuous in wheat or other grain, and where but little exists it may be pulled by hand and the crops freed from its presence.

Chickweed, on cold sour grounds, is a bad weed, and the richer such grounds are made, the more troublesome will this plant become. The best method of eradicating this weed is to change the character of the soil, making it dry by draining, and curing their sourness by using lime or ashes. It rarely shows itself to any extent on sandy or lime rock dry lands, while it will cover a field like a mat where the soil is wet, tenacious and cold.

Climbing buckwheat, or bindweed, is rarely injurious on well tilled lands; but where the cultivation is imperfect, or the plant springs up in grain, it does much mischief by binding the growing plants together and preventing them perfecting their seeds. Weeding or tillage will destroy the climbing buckwheat.

Burdock, independent of the injury it does to crops, is one of the surest signs of a slovenly farmer that exists. When you see the tails of cows, the wool of sheep, or the mane and tails of colts, loaded and bound together with burdock burs, you may without further examination pronounce their owner a slovenly unthrifty farmer. The burdock is easily killed by cutting it below the crown of the plant, and where such is the case there can be no excuse for its presence.

Feverfew, or Mayweed, is common in some parts of our country and is injurious in grain. Thorough cultivation is fatal to it, and consequently it is not so much dreaded as some other plants. Wild or stinking chamomile is sometimes mistaken for Feverfew, but the management of both may be the same, and the extirpation of either is not difficult.

There are many other plants and shrubs that infest the fields of the farmer, and materially lessen his products and profits. It may be remarked, however, that all weeds are frequent or scarce on a farm, exactly in proportion as its management is bad or good. All will prosper where the culture is bad; all will be exterminated where the management is good

Flowers.

We know of no association more constantly present to the mind, or one more fitting, than that which connects woman and flowers; and rarely, indeed, does the first appear more charming, or engaged in an occupation more suited to her taste, than when she is surrounded by the latter, by blossoms that have been trained and cherished by her own fair hand. We have always admired flowers as the most beautiful productions of nature. True they are fleeting, but what is there of the beautiful and lovely which is not? It may be sympathy, it may be mere imagination, but to us the thought has the force of truth, that we have never known a woman, truly pure hearted and angel minded, that did not love flowers. The things by which we are surrounded have their influence on our minds; they give the tone and coloring in a great measure to our character, and, perhaps, our destiny. The man who grows up among the rocks of New England or the mountains of Switzerland, will be a different being from the one who walks the sand plains of the south, or basks lazily in the maremna of Rome. There will be a firmness of nerve and unyieldingness of purpose in the first, unknown to the last, a something caught from the country and climate, and stamped by the surrounding objects, which leave an impression as indelible as mountains and rocks. So with woman; the hues and coloring of her mind; the graceful and the beautiful that make up so much of her existence; the soft and the flexible which, while they seem to leave her helpless, constitute her true strength, all these things are heightened and strengthened by the action of nature around her, and the fragility, and the beauty, and purity of flowers exercise no trifling influence on her heart. What is it that gives the home of the English cottager a degree of neatness and comfort so seldom seen here? It is because honeysuckles and jessamines are twining around the doors and windows; because flowers of many kinds and beautiful hues are mingled with shrubbery in the limited yard. Would that such a taste was more prevalent here. Where so much real pleasure can be purchased at so cheap a rate, so many senses be gratified at once, it is truly a pity so few are found to make the effort. Flowers around a door, or clustered in a window, give an air of happy quiet and peace, of conscious security, and are a more correct indication of good taste, gentle feelings, and an unsullied heart, than silver plate or marble walls. Our object, however, was not to write an essay, but to invite the attention of our fair friends to the subject of flowers, and introduce to their notice Horace Smith's beautiful Hymn to the Flowers, for which we are certain of the thanks of those to whom it is not already familiar.

HYMN TO THE FLOWERS

Day-stars! that ope your eyes with man to twinkle,
From rainbow galaxies of earth's creation,
And dew-drops on her lonely altars sprinkle,
As a libation—

Ye matin worshippers! who, bending lowly,
Before th' uprisen sun, God's lidless eye,
Throw from your chalices a sweet and holy
Incense on high!

Ye bright Mosaics! that with storied beauty,
The floor of Nature's temple tesselate,
What num'rous emblems of instructive duty,
Your forms create!

'Neath clustered boughs, each floral bell that swingeth,
And tolls its perfume on the passing air,
Makes Sabbath in the fields, and ever ringeth
A call to prayer!

Not to the domes, where crumbling arch and column
Attest the feebleness of mortal hand;
But to that fane, most catholic and solemn,
Which God hath plann'd—

To that cathedral, boundless as our wonder,
Whose quenchless lamps the sun and moon supply,
Its choir the winds and waves—its organ thunder—
Its dome the sky!

There, as in solitude and shade I wander
Through the green isles, or stretched upon the sod,
Awed by the silence, reverently ponder
The ways of God—

Your voiceless lips, O flowers, are living preachers,
Each cup a pulpit, each leaf a book,
Supplying to my fancy numerous teachers,
From loneliest nook.

Floral apostles! that in dewy splendor,
"Weep without wo, and blush without a crime,"
Oh! may I deeply learn and ne'er surrender
Your lore sublime!

"Thou wert not, Solomon, in all thy glory,
Arrayed," the lilies cry, "in robes like ours;
How vain your grandeur!—ah! how transitory
Are human flowers!"

In the sweet-scented pictures, Heavenly Artist!
With which thou paintest nature's wide-spread hall,
What a delightful lesson thou impartest,
Of love to all!

Not useless are ye, flowers, though made for pleasure,
Blooming o'er field and wave, by day and night;
From every source your sanction bids me treasure
Harmless delight!

Ephemeral sages! what instructors hoary,
For such a world of thought could furnish scope?
Each fading calyx a *memento mori*,
Yet fount of hope!

Posthumous glories! angel-like collection,
Upraised from seed or bulb interred in earth,
Ye are to me a type of resurrection
And second birth!

Were I, O God! in churchless lands remaining,
Far from all voice of teachers and divines,
My soul would find, in flowers of thy ordaining,
Priests, sermons, shrines!

Original Communications.

"In Agriculture, Experience is of great value—Theories of little, excepting as they are directly deducible from actual experiments and well attested facts."

Wheat Culture in Vermont.

Messrs. Gaylord & Tucker—The communications of my agricultural brethren, their experience and experiments, compose to me an interesting department in the Cultivator. If some of my experiments should be thought worth communicating to the friends of agriculture, through the columns of the Cultivator, they are at your service. That my location may be distinctly understood by the distant readers of your widely extended publication, I will premise by saying that I write from the east shore of Lake Champlain, lat. 44° N. We have a small tract of country here that was once noted for growing fine winter wheat. For thirteen years past it has almost entirely been destroyed by the weevil, when an attempt has been made to grow it.

A partial description of the insect, may here perhaps be interesting to some of your readers. The nit is supposed to be deposited by a small fly at the time, or soon after, the wheat is in the blow. Before the kernel has attained half its growth, the insect, which is of a reddish color, and not larger than the point of a fine needle, may be discovered preying upon the berry of the wheat. I have often counted forty and upwards about one kernel. When but two or three only are about the kernel, it will sometimes mature with but a partial injury. The first season this insect made its appearance in our wheat, I had thirty acres completely ruined. Since that time I have made but slight attempts to cultivate it. Some of my neighbors continued to grow a sufficient quantity for their bread, on elevated limestone ridges; which induced me to make another trial. I accordingly procured some of the flint wheat, rolled it in lime, and sowed about two acres the last days of August, 1835. It got well rooted in the fall, which, I consider, insures an early growth in the spring; it came to maturity early for this latitude, was but slightly injured by the weevil, and yielded at harvesting 25 bushles per acre.

Sept. 8th, 1836, I sowed one acre well summer fallowed, and a promising piece for wheat; 12th Sept. following, I sowed one and a half acres of new land; the soil of both pieces was clay; the seed, as usual, rolled in lime; the weather was dry and unfavorable to its growth in the early part of fall: it came on late in the spring, and in the end was entirely ruined by the weevil. Aug. 28th, 1837, I sowed four acres to wheat, well fallowed and manured: the weather was favorable to its growth in the fall; soil mostly clay; in some parts a little gravel and slate; it got a fine growth in the fall, came forward rapidly in the spring, and that on the weakest and warmest soil composing about one-half of the field, produced a middling growth of straw; came to maturity very early, and yielded thirty bushels of beautiful wheat to the acre. The remaining half of the field, which was much stronger soil, grew heavy straw, lodged, and consequently did not ripen so early; the wheat shrunk, and was slightly injured by the weevil; yielded ten bushels per acre. Oct. 4th of the same year, I sowed one and a half acres of new land, soil clay, covered with a coat of rich black mold; the wheat came up soon, and grew finely in the fall, produced a beautiful growth of straw the following season, and came on just in time to be entirely destroyed by the insect. 20th Nov. following, I sowed one acre of new land adjoining the above, with the hope that it would freeze in, and not germinate until spring: the weather being unsteady, it proved unfavorable to the experiment; a part sprouted in the fall, some in the warm weather which occurred during the winter months, some was washed bare and picked up by the birds in the spring, and at last from 1½ bushels sown to the acre, there was left but here and there a stalk to grow; which came in late, and not injured in the least by the insect.

Sept. 14th, 1838, I sowed two acres of new land, soil clay; it obtained a fair growth in the fall, produced a middling growth of straw the following season, and was so far injured by the insect as to yield but 7 bushels to the acre. The summer of 1839, I had no ground that could seasonably be prepared for wheat, and being by this time fully convinced that late sown wheat would stand a greater chance to be destroyed by the weevil than early sown, I then decided to sow no more, unless it could be done early in the season. Aug. 18th, 1840, I sowed 2¼ acres, well summer fallowed and manured, part of which is a stiff clay, and part lies upon a stony ridge. The season was dry, consequently the wheat did not vegetate as evenly as might be wished. It got a strong root in the fall, and spread so as to almost cover the ground. I suffered five calves and 100 sheep to run on it 3 or 4 days previous to the 22d Nov., after which it was covered with snow and ice until about the 27th of March: the borders on three sides being still covered with snow drifts to the depth of 2 or 3 feet. The part which is uncovered at this time presents a strong healthy appearance, with prospects of an early and heavy growth of straw. If desirable, its farther progress shall be carefully observed, and faithfully communicated.

The Egyptian, wild goose, or many-headed wheat, (known by these different names) is a spring variety, more subject to blast than any wheat I have ever had any acquaintance with, hard to thrash, but seldom injured by the weevil. The Italian, also a spring variety, so far as I am acquainted with it, appears to succeed better. The practice of sowing late, as adopted by Mr. Lotton, of Illinois, might do here if we were sure of a steady winter; still late sown is more subject to blast or rust here, than early sown. Also the practice of L. of Hamburgh, N. J., may answer the purpose in the case spoken of in the Feb. no., but ours is a different case, requiring different treatment. Here, also, on our clay land, early sown is less subject to heave out by the frost in the fall or spring.

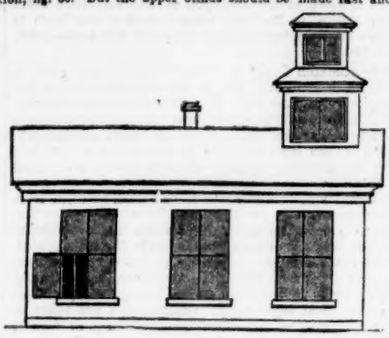
Should the ravages of the weevil extend to the great wheat growing districts of the west, which I know of no reason why it may not, this great staple of the nation may be cut off; the interests of the people in those sections in a measure ruined, and we of the North East, look to Europe as we now look to the west, for our bread; unless some remedy may be devised to avoid its depredations. To illustrate the increasing estimation of the Cultivator with us, permit me to state, that I commenced taking it with the volume in which closed the labors of the much lamented Judge Buel: The next year another number was taken by an agricultural friend; and the present year it affords me the highest satisfaction to witness 12 numbers sent to our office, and our agent informs me that several numbers more will soon be called for.

Your agricultural friend, J. N. SMITH.

Chimney Point, Vermont, April 7, 1841.

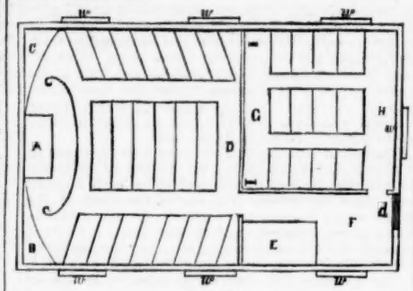
Farmers' New Country Church & School Room.

The following cuts represent the scheme of a church and school-house, measuring thirty-two feet front, and fifty feet flank, and eighteen feet from the floor to the eaves, which may be erected in the center of a thinly inhabited town, or that portion of a small society which is destitute of a house of worship and school-house; where the means are not sufficient to go along with a church, but uniting with a school district, the funds employed to erect a school-house, and if to be placed near the center of a town where a town-room is needed, still further aid might be had by raising a tax on the whole population for the benefit of the town; all the means thus raised, would be adequate to build a convenient and comfortable house on the preceding plan; or it would answer with few alterations, to accommodate two schools on the ground floor. And on occasions when it was necessary to accommodate a large assembly, by removing a partition, described below, the two rooms would be thrown into one. It would be better to construct the outside walls of brick or stone. Each window should have shutters; the lower half might be open or closed, as seen in the elevation, fig. 60. But the upper blinds should be made fast and



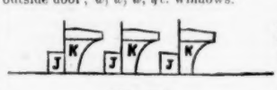
[*Fig.* 60.]

stationary. These blinds should be painted green, that the excess of light might not prove prejudicial to children. The windows should be made so that the upper sash can be lowered, or the lower sash raised.



[*Fig.* 61.]

Fig. 61, represents the ground plan of church and school-room. A, pulpit; the ceiling back of this is genily curved forwards, intersecting the main wall near the windows, so as to form the vestry-room, B, and the library-room, C; this concave ceiling assists in producing sound, which makes it easier for the speaker. D, place for a stove. E, wood-room or closet, or this space may be used for a stairway leading to a gallery for singers, if necessary, which will extend over a part of the school-room, above the petition I, I. F, entry, which leads to the church-room and school-room. G, teacher's table, on a raised platform one foot in height, which extends the width of the school-room, twenty-two feet; here is the place to hang a movable black-board in front of the scholars' desks on the movable partition, I, I, which is made of folding or slide doors nine feet high. H, the place for a stove; the pipe from this to intersect the pipe in the church over the stove, D. *d*, outside door; *w*, *w*, *w*, *&c.* windows.



[*Fig.* 62.]

Fig. 62, "represents an end view of the pupil's desks and seats. J, pupils' seats. K, shape of the board or plank which forms the side and support of the desks. A light green is, perhaps the best color for the scholars' desks and seats, as it is more grateful than any other to the eye." The seats for the small scholars are not represented here, but they should have backs, and, if needed, be movable, and placed as the general arrangement of the school shall render convenient.

The height of the school-room sixteen feet, unless there should be constructed over the room a gallery for the church choir. If that be the case, then ten feet in height over the master's table G. The ceiling might be raised higher as it recedes to the wall over the stove, H. Light may be admitted into the school-room through a window in the partition wall front of the window, at F. Yours, S. W. JEWETT.

Experiments in the use of Lime.

Messrs. Gaylord & Tucker—Having heard much said and seen much written upon the value of lime, I have been induced to make a trial of its supposed virtues, and have satisfied myself upon that subject. The first experiment that I made with lime was upon a field of potatoes, a part of which was limed, and at digging time I could perceive no difference in the field. The lime I used was newly burned and slaked upon the field at the time it was used. I put about a half a pint of lime to each hill, first dropping the lime and then the potatoes. The soil on which it was used approached to loam and was in a high state of cultivation. I next made an experiment upon the same crop and in the same manner, on an upland stony soil of a poor quality, and which was attended with the same result. I next made an experiment with lime by mixing it with swamp muck, having read of its value in forming a compost. I applied the compost to a part of the field last mentioned, but could perceive no more beneficial effects than where the muck was alone used.

By the way, I would recommend to those who have a deposit of muck near them, to make a free use of it upon their upland stony ground, as they will find it a most valuable manure. The course I pursue is to cart it out in the fall upon the field on which it is intended to be used, and drop it in small heaps so as to be subject more directly during winter to the pulverizing influence of the frost.

I next experimented with lime upon a field, a part of which was sown with wheat and a part with rye. The soil was low but well drained, and of a black color, and was thought to be of a good quality. The result of this experiment was that there was no perceptible difference between the limed and unlimed wheat and rye. The lime was spread from a cart with a shovel as evenly as possible, and in fair quantities. Such has been the result of my experiments; and now I wish to state an experiment of a neighbor. The soil on which he experimented was a stiff sour clay, and upon which nothing would grow but a kind of furze grass, the very picture of sterility. It has been limed and plowed, and a tolerable crop of potatoes have been raised on the limed, while on a small piece of the unlimed, although the same course was taken in the cultivation, there was not a return of the seed.

The result of these experiments appears to show that *lime may be beneficially used to correct the acidity of land, but that it is not a manure*, whatever fine spun theories may say to the contrary.—*Tivoli, N. Y. April 9, 1840.* G. C.

Artificial Watering Places.

Messrs. Editors of the Cultivator—Mr. William Robertson of Fishkill Landing, Dutchess county, one of our most successful farmers, has communicated to me the following mode, successfully practiced by himself, of supplying with water, fields destitute of springs, ponds or rivulets. The farm lately occupied by him is now in the hands of its proprietor, J. D. L. Verplanck, Esq., where the watering places constructed by Mr. R., may still be seen. The situation of the farm is upon the whole favorable for the purpose, and the plan may therefore seem to require further tests by experiment, before it can be considered invariably successful. He says it was entirely an accidental discovery: he one morning found one of his calves drowned in a barrel sunk in the usual way for the purpose of collecting water from a spring. The water had sunk to near the bottom of the barrel, and the animal in reaching down for it had lost its balance, and falling, was unable to extricate itself. Vexed at his loss, he immediately ordered the cavity to be filled up; this was accordingly done by throwing in a parcel of round pebble stones, which were lying near at hand. The next day in passing by, he saw to his surprise, that the water had risen over the tops of the stones although no rain had fallen, and the season had been very dry.

The idea then struck him (manifestly erroneous, as the barrel is not water tight in these cases) that it was similar to the raising of water in a pitcher by throwing in pebbles, and he determined to make the experiment more complete. Accordingly the barrel was taken out and the hole deepened with very little appearance of water, and he stuck his crow-bar down so as to make several deep holes; then replaced the barrel, packing it well around with earth, and afterwards filled in the barrel as before with the pebbles. In a short time he had the pleasure of finding the water oozing in and gradually raising over the stones until it stood *permanently* some inches over the surrounding level. He repeated the trial in several other fields, and *always* with success, even in places where, on first digging down, there was not the least appearance of moisture, much less of water; he considers that the appearance of springiness is of no consequence, but that water will at length show itself in the barrel in all cases, and will finally rise eighteen or twenty inches above the surface apparently increasing in quantity for a year or two.

Such is Mr. Robinson's statement, and he is fully entitled to our confidence, yet I do *not* believe that this is an *infallible* method of obtaining water *in every* situation, strata or soil; it nevertheless appears to me reasonable to suppose that it may prove of great service in many places at present destitute of water, without resorting to expensive boring, digging wells or making artificial ponds; the last especially from the severity of our seasons, requiring great labor and care in their construction to prevent their being affected by frost or drouth.

I do not know whether the following suggestions will throw any light on the rationale of this simple process, which at first sight appears scarcely entitled to notice. The driest soil (to appearance completely dessicated) nevertheless contains *some* moisture, quickly attracts more from the atmosphere, and, if collected, from a large body of earth, it would form a considerable rill. If we suppose *one* drop gradually to distil and roll over into the excavation, its fall and its attraction will put in motion the next particle and the next, and so on as long as there are particles to be affected, and this takes place not only in one right line, but extends in every direction; at first only those flow towards the aperture which are in a horizontal plane with the upper level of the vessel, but by degrees the higher strata are affected, and their pressure from above in a tight vessel or tube (for the sides of the barrel become tight by the pressure and packing of the earth and swelling of the staves with moisture) is at length sufficient to force up and sustain a column of water something above the surface of the adjacent soil. I presume, were the communication to be cut off by any means with lands, though distant, higher than the surface of the ground around the barrel, it would not rise above the rim. Probably with a neater adjustment and a perfectly water tight apparatus, a still greater elevation might be obtained. The origin of natural springs is accounted for in precisely the same way; the only difference is that we here furnish an artificial reservoir for the almost imperceptible arteries of the earth which otherwise would steal away to some natural orifices issuing at the surface. The stones assist in enabling a small quantity of water to rise to a higher level; perhaps their natural coldness aid in condensing terrestrial vapour.

It may be considered analagous to the creating an issue in

our own flesh by inserting a pea, for instance, in a muscular part of the body and thus creating a dissemination of the natural lymph to one particular orifice. I should have made trial of this plan on my own place, but (fortunately in all other respects) mine is a piece of ground abounding with water and would add no corroboration therefore to the experiments of the inventor; requiring so little trouble, perhaps some of your contributors will put it into execution and communicate the result. A SUBSCRIBER.

Fishkill Landing, Dutchess Co., N. Y.

Letters from the West—No. 7.

The Pork Business at Cincinnati.

THE business for which Cincinnati is most famous is pork packing, and to the details of this, during my brief stay there, I devoted considerable attention. As I walked through the immense slaughter houses, I could not but deplore the fate of the amiable grunters, that every season are made to walk off into the barrel, with such admirable scientific skill and celerity as are here displayed. Poor piggy! he is not allowed time for even a single imploring cry, ere he is remorselessly knocked down, his warm blood is quickly seen oozing off in a little rivulet to the great stream of Rio Sanguinetta, (bloody river,) his glossy bristles are ruthlessly scalded off his hide, and in a trice he hangs up by his hind legs, head down, at full length, from the sharp hooks in the cooling house, displaying his white, clean skin, broad ham, thick jowls, and interlarded sides, a watery mouthing piece to the dainty epicure that walks the premises, thinking what a juicy roast and capital smoke and fry he will make, and wondering what dreamy lands his wild spirit is now wandering o'er. Talk of poetry and romance, and all that sort of thing—I advise the sentimental and imaginative in the bright months of November and December, to come to Cincinnati for a lesson upon these subjects! Now to statistics.

During the past season 150,000 hogs have been cut up here, averaging 210 lbs., making 31,500,000 lbs. pork; employing in this and the branches of packing, smoking, &c. 1220 hands, and a large capital. The season of '38 and '9 was still larger, 210,000 head were then cut up, averaging 175 lbs. Pork then bore a high price, and the farmers were more eager to get it to market than at present, when it sells so low. I will now state the capacity of one house for this business.—25,000 hogs have been cut up in a single season, 1500 of which can be done in one day, with fifty hands, averaging 200 lbs. wt.—800,000 lbs. can be smoked at one time, or 4,000,000 lbs. in a single season. The season for killing and packing is short, only about ten weeks.

As to the color of hogs, the packers are totally indifferent to it, a black or a spotted, a blue or white is all alike to them, nor does it make any difference with the purchaser or consumer. I hope, therefore, to hear no more objections to the color of Berkshires; it is never thought of here at the West.—Now to the weight, and upon this point I was very minute and particular. If the side pork is reasonably thick, say four or five inches, they do not wish the animal to weigh over 250 to 300 lbs., for with such hogs the shoulders and hams are *small and tender, easily* saturated with salt and smoked, and bring the highest market prices. Indeed, the best prices that they fetch is in the Virginia market, and then they only want a 200 lb. hog. Animals that weigh 450 to 500 lbs. are long and thin here, and do not cut any thicker side pieces than those of a proper conformation, that only weigh 250 lbs., then the hams and shoulders of the large animals are *coarse and thick, difficult to salt and smoke*, and do not bear so high a price in market by *half* a cent per pound as the smaller and more delicate hams and shoulders. I wish to call the particular attention of the pork raiser to these facts. It will be seen now that the very smallest sizes of the fine Berkshires can easily go in weight over the desideratum of the pork purchasers and packers of the West. The live weight of the least Berkshire sow I ever had in good breeding order, weighed on the scales alive 303 lbs., and could easily fat to dress nett 350 lbs., and cut at least 4 to 5 inches thick of side pork, which makes heavy mess pork enough for even the Boston market to supply to its fishermen, and give tender, lean, juicy hams and shoulders with very small bones, and a trifling per cent of offal. Now what more can the public want than this? But urged on by a spirit of pride, and for the sake of bragging about sizes, they seem determined to sacrifice to this folly the finest race of the swine kind that ever existed. My breeders now run from 350 to 600 lbs., in good store order, and would fat from 400 to 700 lbs., double the weight required by purchasers at the greatest pork mart in the Union, and still the cry is for size, size! Well, size they shall have now to their hearts content, for it is my intention to import some Berkshires this season, that will *fat, full grown, to one thousand pounds.* They can be had in England just as easily as a finer medium sized race, and I am determined, for one, that the cormorant appetite of the public shall be satisfied, in this particular, to the full, at the same time to please myself and the more judicious number of my purchasers, I shall still continue to breed good medium sizes of about 400 lbs. weight, and we shall see at last who is right.

Visit to the Farm of Mr. Mahard.

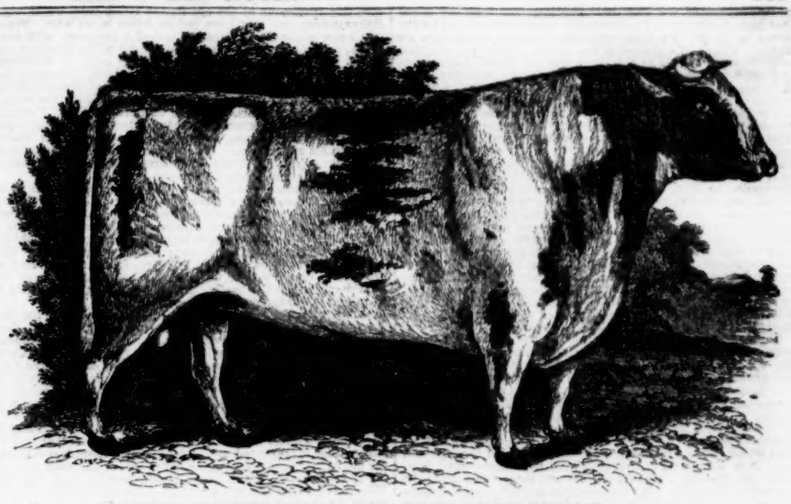
With these prefatory observations, I come to the farm of Mr. JOHN MAHARD, Jr., which to him is a sort of pleasurable hobby, his main business being that of a most extensive pork-packer in Cincinnati, having cut up at his establishment the past season about 22,000 hogs. Mr. M. has been many years engaged in this business, and has consequently large experience in the sort of animal upon the whole the most profitable to the producer and consumer. He early saw the deficiencies in the common hog of the country; they were either too large, coarse and thin in the sides, or too small, and for the last ten years he has endeavored by crosses of the grass, Leicester and various other breeds, to get him a broad, square, thick animal, and thought, about a year since, he had at last, after so much pains and expense, eminently succeeded, and felt great pride at the perfection at which he had arrived, when lo and behold he came across some Berkshires, and what was his astonishment to at once find that these were the very animals that he had sought to attain, and good as he before supposed was his own breed, that these cast them entirely in the shade. With his characteristic good sense and decision, he at once made a liberal purchase of all the best strains of the pure blood in the country, and commenced, by way of pastime, as a breeder, taking for his style as a general rule, those of a fine medium size. But in order to please the public and accommodate himself somewhat to its taste, he also got some of the larger classes, and is breeding about half of one size and half of the other, and in addition to the best strains already imported he is to have out this fall some fresh ones from England, part of which will be of the very largest sizes.

It was late in the afternoon that a jolly quartett of us, viz. Mr. MAHARD, Mr. AFFLECK, of the Farmer and Gardener, Mr. FOSTER, the animal painter and engraver, and myself, started for the farm. We climbed the hills overtoping the town with great glee, dashed round the tasteful buildings of the Lane Theological Seminary, where Dr. BEECHER so eminently presides, and after passing villa and farm house some three miles more, we found ourselves at the elegant mansion of Mr. M.—It was quite dusk when we arrived here, so leaving the discussion of the stock till the morrow, we soon set about that of a capital supper, and then early to bed. We were up betimes the next morning, and out in the clover fields, where we found most of the grown Berkshires that were not suckling their pigs, ruralizing on fresh grass, even at this early season, with little else to eat save a small quantity of wheat bran swill, and yet they were all in fine order; and some I thought almost too fat for good breeding. Still, as it was very different flesh from the corn fed, being light and loose, perhaps they were as near right upon the whole, as they well could be.

Mr. Mahard is a judicious feeder. When a sow has pigs by its side it is high kept, and the offspring tempted to eat as soon as possible. The pigs do not scour then or fall away upon weaning, though done at an early age, and as soon as relieved of this burthen, the dam is put into good condition and then turned out for a run at grass, if in the summer, or a large roomy pen, with light food, if in winter. He tells me that thus managed, upon an accurate calculation that he has made, his food costs him but about a penny per day per head, and as cheap as grain is in this country, and as well acquainted as I am with Berkshires, I can readily believe it. I have frequently kept them at home at a cost of two cents per day, where food is double the price it is here.

The stock I think generally beautiful; Lollo, Oteco, Darkeye, and Daisy are probably the choicest of the grown breeders, while Nell, Dinah, and Millie are the largest; then there is a goodly number of yearlings coming on, got by Mr. Lossing's imported boars, out of my great Shaker sows. Of the boars, Sagamore, out of the beautiful Raven Hair, is very fine, with the best hams I ever saw on a male. Young Newbury is large and fine, and as for Long Canoe, if he don't make a show for size when full grown, I am greatly mistaken. Though but eighteen months old, he stands within a fraction of 2 ft. 7 in. high to the top of his shoulder, and is nearly 6 feet long, measured in the usual way. He bids fair to out-top a Mississippi alligator,—so look out for a rearer here in the West. Doctor Shaler, of Newport, Ky., refused $100 cash for a four months sow pig of his get out of Oteco, while the same gentleman who made this offer paid Mr. Mahard $50 for the choice from the litter of Daisey only two months old. The former is very large, the latter of a medium size, and both as near perfection now as it is possible for animals to be; and to conclude about Berkshires, I most heartily commend Mr. Mahard's breeding to the Western public.

We now pass on to the Durhams—Prince Frederick is my choice of the older bulls; he is 3 years past, and weighed on the scales last month 1760 lbs. in fair working condition; is a good handler, quiet temper, with fashionable and airy style, carrying a beautiful arched neck and fine head and form. A very accurate portrait* of him, by Foster, graces the April No. of the Western Farmer and Gardener. I thought Lady Ann and Juno the best of the imported cows, and they are famous good milkers. The former has given her 31 quarts per day, and the latter averaged 24 quarts for 4 months after calving, and gave 8 quarts within five weeks of calving again, and it was with considerable difficulty that she could be dried up at all. Mrs. Mahard told me that the quality of this milk was much superior to any she ever had from the native cow. Florida is a fine animal, and was bought at Major Clarkson's sale in '38, with a calf at her foot, for $1075. Empress is a good one, out of Lady Anne, imported in calf;—of the heifers bred here, I liked Miranda best.



SHORT HORN BULL PRINCE FREDERICK—[Fig. 63.]

Owned by John Mahard, Jr. Esq., Cincinnati, Ohio.

Mr. Neff's Short Horns, &c.

The second day after this, Mr. W. NEFF called upon me for a ride out to his farm, where my eye was feasted by the sight of about fifty head, large and small, of pure improved Durhams, which I do not scruple to say compose for so large a number the choicest, finest and most *even* bred herd that I ever yet had the pleasure of looking at. Retiring from his mercantile pursuits, on an ample fortune, with a taste and spirit that does him honor, Mr. N. has devoted much of the past four years of his life to the raising of stock and agriculture. Having ample means, he commenced right by purchasing the best animals to be had, and has continued to breed from them with great care and skill.

The bulls he began with were Hector and Brutus, bought at Whitaker's imported sale at Philadelphia, in 1838. My brother, who was present then, pronounced them the choice of the lot. Hector is now sold into Kentucky; I therefore did not see him; but Brutus still stands here in all his glory, with a weight, I should judge, of at least 2500 lbs., and some think of 2,700 lbs., most too much flesh I should fear for good service, though they say he is active under it. With this great weight, he is fine in his points, well let down in the twist, and has the best brisket I ever saw, measuring 2 ft. 9 in. across it, and a back broad enough to make up a cot-bed upon. These have been followed up by Prince William, now three years old, selected by young Mr. Whitaker, from among the choicest animals in England, and imported in '39. Taking him all in all, I think, in his present form, he is one of the most perfect and beautiful of the improved short horns within my recollection. Of great substance, fashionable, airy and fine, a quick feeder, a quiet temper, and fair handler. With these general remarks, and to give my Northern friends a more accurate idea of the animal, I subjoin an exact admeasurement of him, taken by Mr. Affleck and myself. Length from the base of the horn to the root of the tail, or rather end of the quarter, 8 ft. 1 in.; girth, round the heart, 7 ft. 7½ in., do. round the loin, 8 ft. 2 in.; height over the shoulder, 5 ft. 2½ in.; spread of the hip, 2 ft. 3 in. This, of course, will be something more as he grows older, he will also attain a greater depth of carcase, wider brisket, &c. &c. His weight is now judged to be at least 2100 lbs. Mr. N. thinks Young Prince, yearling got by the above, as even more promising than his sire, but he may well be proud of his breeding if he even equals him.

Among the cows, Beauty, Blossom and Profitable pleased me the most. The former is quite as easily kept as a China pig, and the only difficulty is how to get her *poor* enough. Ruth is indifferent to look at, but as is often the case when the animal is itself well bred, has proved a very superior breeder. Victoria, her first calf, I think, is a perfect gem. Some might judge her as a trifle too short, but to my fine taste she seems as near perfection as one might hope to attain—she is of the medium size, and to her finished form adds those requisites that will give the most beef and milk for the food consumed.—Is not this then the desideratum?—and to what beyond this ought we to look for? Louisiana, another daughter of Ruth, a two year old, I found nearly as perfect as her fair sister, but much larger—then, of the same age, were Virginia, Clifford, and Georgia, all very fine, and as to their particular merits the public seem to be about equally divided. Sibella struck me as the jewel of the yearlings, yet all seemed good enough, and he must be particularly fastidious that should object to any one I saw in the herd. These finished, Mr. Neff took me to see a superb heifer calf got by Prince William, out of Victoria, the first produce from a cow of his own raising, and of which he seemed to be prouder than of all the rest he had shown me. Now I like this feeling; it is laudable, and I could only wish it were more extensively cultivated.

In the swine family, Mr. N. has but a moderate number; his feelings were rather against Berkshires till he tried them with his others, and I believe now he is convinced of their superiority, and as evidence of this has given me a liberal order out of my present expected importation. I here saw what he called the Liverpool hog, which I recognized at once as of the same family as the Leicesters, that abound in Western New-York. The Irish Grazier that he showed me, had a better barrel than I expected to see. He is rangy, and I should judge a good traveler, but long in the snout and neck, and somewhat disposed to a scurfy skin. Mr. Affleck told me that they were of immense size in Kentucky, but perfect *corn cribs*, which is to say enormous consumers.

The stables here, I found well arranged, and each animal has a stall to itself. The corn is all boiled, and the straw cut, and a little wheat bran added to it. I was also shown a pile of the sugar beet still sound and sweet after their wintering, and was glad to hear Mr. N. acknowledge their good qualities in sustaining his stock. Now this is agricultural orthodoxy, shelter, cooking food, and maugre the anathemas of Doct. Guthrie, feeding sugar beet. I wish I had time at my disposal, I would give a plan for cooking corn and feeding it here in this country, that I know, notwithstanding its low price and the extra labor in doing so, would greatly result to the farmer's advantage. The general idea is this:—Get a strong powerful corn-cracking machine, then go into the field with wagons, and take the ears from the stalks in the husk, throw them into the hopper, and break up cob, grain, husk and all; throw the meal into large vats of water to thicken and ferment, or even boil it and then draw it out into troughs for feeding. I hope Mr. Neff or Mr. Mahard, or any other of the Western gentlemen here, so fully competent to the task, will one day give you their plans and ideas on this important subject, for we had full and frequent talks upon the matter, and they seemed to think it could not but pay. To finish off with, we took a walk in a flourishing vineyard, and returned to town at night-fall, highly gratified with my day's excursion.

The pleasant week that I spent in Cincinnati seemed to me but a day, and it is my intention to *come* again, and float down the Mississippi to its mouth, and *then* up to the Falls of St. Anthony, and across from thence through the mineral region to the Lakes, and so down home; this will give one a very satisfactory idea of the great Southern and Western region. We travel amazingly cheap here now on the rivers; for instance you can go from this to New Orleans for $15 in the cabins of the crack steam-boats, and return for $17, which is about the same as living at a hotel. The boats are differently constructed from the rakish looking craft that plow the Lakes of the West and the waters of the East. Here they are of light draft and flat bottoms, with the lower deck almost even with the water, the machinery mostly on this, and the cabins on a hurricane deck above. They loom large, and command good views of the adjacent country, but in our big waters, of course, would be easily capsized in a gale. The Ohio here is rather a grand stream, being ⅓ths of a mile wide by measurement; its waters, however, are turbid, and present nothing of the clear trans-

[*Fig. 63, engraved from the print in the Western Farmer, by Dr. Anderson, of New-York, for the Cultivator.—EDS.]

parent beauty of the Niagara. The hills are from 300 to 600 feet high, and generally picturesque, sometimes coming boldly down to the water's edge, but more generally rising from an alluvial bottom of a greater or less width. But let no one think of finding any where at the West the ever varied and matchless scenery of the Hudson. There is a great sameness in the hills along the Ohio, and after gazing on ten miles of them, you have seen all. Many beautiful villas crown the heights above Cincinnati, with extensive adorned grounds, and much taste is displayed in cultivating flowers and green-house plants. You will see them at many a humble window in rich profusion, on board the steam-boats, and even in the rough arks and broad-horns (a rough scow.) It was the 24th of April that I left, the earlier fruit trees were shedding their blossoms, and the apple, the lilac, the dog wood, and red bud, (*Cercis Canadensis,*) were in full bloom all the way up to Portsmouth. The winters here are milder and more broken than the same latitudes east of the mountains, as well as I can judge, but I doubt whether vegetation is much more advanced in the spring; it may be retained a little later in the fall, yet this can only be ascertained by accurate journals kept on each side of the mountains. I wish some gentlemen would undertake it, and in doing so the native trees, shrubs and flowers in the forests should be the guide. Exotics and garden productions are not so sure a test. In this the difference of a week may be made by protection, rich light soil, and superior cultivation.

From Mr. Affleck, of the Farmer and Gardener, I received much attention. He is a capital warm-hearted fellow, and after attending agricultural lectures, under Professor Low, of Edinburgh, came over here, and has perambulated much of the Union, and especially that part of the great South and West stretching from New Orleans up the waters of the Mississippi, Missouri, and their tributaries, making himself particularly acquainted with the cultivation of the various products of this extensive region. He is also an excellent judge of stock of all kinds, and any one seeking information on any of these points, may rely upon full, free and satisfactory information from him. Mr. Hooper, I believe, has devoted more attention to the nursery and garden. Mr. Foster, the animal painter and engraver, is rapidly acquiring skill in his art. It is but about six months since, that he has paid attention to this subject—what an improvement in the portraits of Prince Frederick and Fanny in the November No. of the Farmer and Gardener, and the same and Reading and Miskwa in that of April. Had the paper been as fine, they would show nearly equal to the beautiful engravings that adorn the London Farmer's Magazine. I heartily commend this spirited little work to the agricultural public.

Visit to Chillicothe, Circleville, &c.

Immediately upon my arrival at Chillicothe, I was met by my excellent friend, General Worthington, and who, though at present is perhaps more interested in politics than agriculture, took upon himself the *bore* of showing short horns, and was quite devoted to me while there. We first visited the fine farm of Mr. Geo. Renick, where I saw the magnificent imported cow Violet. She is the brag animal of the female gender in the Sciota Valley. Her size is enormous, yet she is fine;—she handles well, and is 2 ft. 6 in. across the hips. She is the greatest cow that I ever saw, and I much regret that they have been so unfortunate with her produce. Donna Maria, out of an excellent imported cow of the same name, a yearling, is very choice and fine, medium size, and greatly to my taste,—she handles like the softest velvet. Commodore Perry, got by Comet Halley, is a good one, though a trifle coarse; there were about 20 head here altogether, and the most of them deserving commendation. Mr. R. prides himself greatly in raising grade steers, of which he has a large herd. If I recollect right, he and his brother at Bloomfield, took all the prizes in this line at last October Fair. Had not the herd been so far off, and my time so limited, I should have been glad to have gone and taken a look at them; but in October I had a pretty accurate idea of the stock; they are a splendid improvement on the scrubs of the country.

From this we called upon Doct. Watts, a mile or so only below the town, on a farm of 1200 acres of the rich Sciota bottoms, every rood of which is arable and under a high state of cultivation, and in the large fields of which they were already planting corn. Here I saw Marshall, that took the first premium of bulls at the last fair. He was then 3 years and one month old, and weighed 1688 lbs. His barrel is long and good, handles well, and is of the quietest and best of dispositions, a matter to which they are paying great attention at present here,—a vicious bull, however perfect otherwise, is usually sacrificed. I was also gratified by a sight of Comet Halley, who maugre a little coarseness in the head, is as near right as can be. Prince Albert, a half brother to Marshall, is still nearer than the latter, and their dam Arabella is a good cow in herself, but a still better breeder. The Doctor, or rather his accomplished lady, has gone pretty deeply into Berkshires, and she exhibited, at the dinner table the silver cups she had won in their exhibitions, with commendable pride. It is thus that the agricultural interest stands foremost in the West, and a little attention to choice stock rather adds to, than detracts from the elegant refinements of the fair sex in this country. If I am ever so fortunate as to get a wife, I hope it will be one whose taste runs in this line, as well as the other accomplishments of life. Queen Victoria stands at the head of an agricultural society in Great Britain, and why should not our own fair daughters grace their exhibitions.

From thence we took a ride to the grand old place of the late Governor Worthington, which is more in English style than any thing I have yet seen at the West. It is quite a castle of a house, of thick massive stone, standing on a hill about a mile from the road, and over-looking the town, the winding Sciota and its rich fertile bottoms to a great extent, the hills beyond to the wild boundaries of the Hocking, and the elevated plain that stretches away off to the Lakes. A thick hedge of the native thorn surrounds the lawn leading to the house, and on the east side is an extensive terraced garden, abounding in fruits, and shrubs, and flowers. Had I room in my sheet I should like to give you a plan of the place, which would convey a much better idea of it than mere words. The General returned to his family in town, while I was hospitably entertained by Mrs. Worthington, the lady of the late Governor, for whose attentions on a stormy night, and in rather ill-health, I felt very grateful.

The next morning I called on Mr. Anderson, occupying the seat of the late Gen. McArthur, another noble old stone house on a hill, commanding a fine view of the adjacent country.—Here again I had the pleasure of examining some beautiful short horns. Hearts-Ease, out of the Dutchess of Liverpool, got by the Duke of York, is a fine choice cow, and of good size. A yearling heifer of hers, got by Marshall, is very promising, of much length, a great quarter and fine head. Another heifer, Gem, out of the same dam, struck me as being most appropriately named. She was got by Walter out of Teeswater,—these two last were sold at the company's sale here for $2,250. Mr. Anderson also showed me some fine horse stock, among which were two half sisters to Col. Johnson's celebrated Ironette. The grey filley, Anna Medoc, was got by Medoc, sire of Grey M. that lately made such a tremendous run, winning a 4 mile race in the quick time of 7m. 35s. Anna is a powerful stout built horse to my eye, and I should like to see her crossed with Bellfounder. Her shoulder is more upright than blood horses usually are, and I have no doubt, thus bred, would produce superb roadsters. I hope Mr. Anderson will send her to Lexington, Ky., where Bellfounder is now standing. I saw some very fine specimens of the old Patton stock here, which were different from any that have before fallen in my way. Those that I saw at the North were tall and of a deep red, with dark noses, making me judge them to be a cross of the Hereford and North Devon; these here show a strong cross of Hereford, with what I should think the old Long Horn, or perhaps the Durham, but in an opinion upon this subject I would refer to the more able pen of Doct. Martin, of Ky. Those I saw here were excellent animals, and take on flesh rapidly. I should think them good stock for the butcher; they are great favorites with Gen. Worthington, he cultivating them almost exclusively on his prairie farm. He says they do not mature so soon as the Durhams, but thinks they drive better over the mountains to the distant Eastern markets.

Mr. Felix Renick resides on a fine bottom farm with some hill lands, about 4 miles below Chillicothe; his stock of full breds is not large, but mostly very fine. Josephine, an imported cow, has taken the first premium at the cattle fair for 3 years. Out of her he has three excellent calves; one of which, Nonpariel, 2 years old, has already taken two premiums. His bull Rover was bred by Wm. F. Paley, Esq., and imported in '36. He is large, with a well set arched neck, full over the shoulders, long in the barrel, and the very best handler for a male that I ever touched.

At Circleville, I had not time to call upon any one but Mr. Thos. Hedges. Here I found the celebrated bull Ackmon, that brought at the company's sale $2,500. He is a most superb animal, with extraordinary loin, and his reputation for getting beef stock is probably superior to that of any other in the Valley. The imported cow Lively is very large, and great in flesh. Mr. H. has a numerous herd of grades, and many of them quite fine; he also keeps a few good Berkshires, and is crossing up his stock as rapidly as possible.

It was my intention to have called upon Mr. Wm. Renick, at Bloomfield, 9 miles above Circleville, but the weather was so stormy that it prevented me. I made a visit there last fall, but did not at that time take any memorandum of the stock, expecting to see it again. It is numerous and generally good. His cow Victoria that took the first premium at the last October Fair, is one of the choicest animals I know. He has some famous great steers also. There are many other excellent short horns in this vicinity, which I would have gladly taken a look at, had time permitted; but one might devote a month to this business in the Sciotia Valley alone, and yet not see all. My remarks upon the West for the present are at an end.

Columbus, Ohio, April, 1841. A. B. A.

Preparation of Hams in Kentucky.

Messrs. Gaylord & Tucker—There have been published many modes of curing bacon; and in the cases in which these have been the result of experience, they may all be successful, and entitled to the confidence of the public. Some, perhaps, are more simple, less laborious, and more uniformly safe than others. The following mode has stood the test of thirty-five years' experience without a single failure—of twenty-seven years in Spottsylvania county, Virginia, and of eight in Kentucky, where I at present reside. I can, therefore, recommend it as a safe and certain mode of making sound, sweet bacon. The salt used in Virginia was Liverpool blown salt; in Kentucky the Kanhawa and Goose creek. The ashes from hickory or the sugar maple.

I will now begin at the beginning, and describe the whole process minutely, premising, however, that, to have good bacon, we must have good pork, neatly dressed or cleaned. It is important that the hogs should be killed in proper weather, by which I mean that the weather should be such that the hogs, hung up after they are cleaned, should be not only cold to the touch, but feel stiff, not frozen, after hanging up till the animal heat is out. I always kill on one day, and cut out and salt up the next. If the weather is quite cold *after they are stiff*, I put the hogs in the cellar that they may not freeze; if the weather is moderately cool, I let them hang up in the air all night. The cutting out is the next operation. This need not be described further than to say that the back-bone or chine should be taken out, as also the spare-ribs from the shoulders, and the mouse pieces and short-ribs or griskins from the middlings. No acute angles should be left to shoulders or hams. In salting up in Virginia, I put all the meat, except the heads, jowls, chines and smaller pieces, into *powdering tubs*, (water tight half hogsheads.) In Kentucky I have used large troughs, ten feet long and three or four feet wide at the top, made of the Liriodendron tulipfera or poplar tree. These are much the most convenient for packing the meat in, and are easily caulked if they should crack so as to leak. The salting tray or box in which the meat is to be salted, piece by piece, and from which each piece, as it is salted, is to be transferred to the powdering tub or trough, must be placed just so near the trough that the man standing between can transfer the pieces from one to the other easily, and without wasting the salt as they are lifted from the salting box into the trough. The salter stands on the off side of the salting box. Salt the hams first, the shoulders next, and the middlings last, which may be piled up two feet above the top of the trough or tub. The joints will thus in a short time be immersed in brine.

Measure into your salting tray, four measures of salt, (a peck measure I have found most convenient,) and one measure of clean dry sifted ashes; mix and incorporate them well. The salter takes a ham into the tray, rubs the skin side with this composition and the raw hock end, turns it over and packs the composition of salt and ashes on the fleshy side till it is at least three-quarters of an inch deep all over it, and as much on the interior lower part of the ham, which is covered with the skin, as will lay on it. The man who stands ready to transfer the pieces as they are salted, takes up the piece and deposits it carefully without displacing the composition, with the skin side down, in the bottom of the trough. Each succeeding ham is thus deposited side by side, so as to leave the least possible space unoccupied. When the bottom is all covered, see that every visible part of this layer of meat is covered with the composition of salt and ashes. Then begin another layer, every piece being covered on the upper or fleshy side three-quarters of an inch thick with the composition. When your trough is filled even full in this way with the joints, salt the middlings with salt only without the ashes, and pile them up on the joints so that the liquified salt may pass from them into the trough. Heads, jowls, back-bones, &c. receive salt only, and should not be put in the trough with the large pieces. Much lighter salting will preserve them if they are salted upon loose boards, so that the bloody brine from them can pass off. The joints and middlings are to remain in and above the trough without being rehandled, resalted or disturbed in any way till they are to be hung up to be smoked. If the hogs weighed not more than 150 pounds, the joints need not remain longer than five weeks in the pickle; if they weighed 200, or upwards, six or seven weeks is not too long. It is better that they should stay in too long rather than too short a time. In three weeks, jowls, &c. may be hung up. Taking out of pickle and preparation for hanging up to smoke is thus performed: Scrape off the undissolved salt, (and if you had put on as much as directed, there will be a considerable quantity on all the pieces not immersed in the brine. This salt and the brine is all saved; the brine boiled down and the dry composition given to stock, especially to hogs.) Wash every piece in lukewarm water, and with a rough towel clean off salt and ashes. Put the strings in to hang up. In Virginia I used for strings white oak splits, in Kentucky hempen strings. Set the pieces up edgewise that they may drain and dry. Every piece is then to be dipped into the *meat paint*, and hung up to smoke. The meat paint is made of warm, not hot, water and very fine ashes, stirred together till they are of the consistence of thick paint. When the pieces are dipped in this, they receive a coating which protects them from the fly, prevents dripping, and tends to lessen all external injurious influences. Hang up while the pieces are yet moist with the paint, and smoke them well. In this way I have cured from six to eight thousand pounds of bacon every year, for twenty-seven years in Virginia, and eight in Kentucky.

I use at least three bushels of salt to 1,200 pounds of meat. This may be thought extravagant, but it insures success, and none of it is lost. For what is left is all fed to the stock, and being mixed with ashes, I believe has a tendency to promote their health more than salt alone.

Should you desire it, I will, at some future time, give you our mode of trying up lard,* which is not exactly that in common use.

Very truly, your obedient ser't, JOHN LEWIS.

Llangollen, Ky., March 15, 1841.

Odds and Ends.

Refined vs. Common Sugar.—It is worthy of inquiry, whether it would not be more economical to use more refinedsugar in our families. Common brown sugar is generally about two-thirds the price of refined. For many domestic purposes, I am satisfied that refined sugar is the cheapest. Will some one better acquainted with the subject, give us their opinions?

Maple vs. Cane Sugar.—What is the relative strength in saccharine, between common brown sugar and common maple sugar? It is the prevailing opinion that the cane sugar contains some 25 per cent the most saccharine matter. Is it so? Will some one who has the means of trying the experiment, do so, and report facts?

Sugar vs. Pork.—If sugar and pork are the same price, which is the cheapest food for a family? Many persons who buy their meat, are excessively penurious in their purchases of sugar, under the impression that they cannot afford it. I am confident that they are mistaking their own interest. Besides, sugar, particularly for children, is a much more healthy diet. That is, when not used to excess.

Change of Diet.—This is a subject upon which by far too little attention is paid. Human aliment is often productive of health or sickness, and consequently of human happiness or misery. Children in particular, require a constant change; but the change should be a judicious one. I wish that many of the able medical men who read your paper, would make communications to it upon the subject of human diet.

Washing Butter.—I venture to assert without fear of contradiction, that no family eat sweeter butter than mine, either new or old, and my wife always washes her butter thoroughly in cold water. The object of washing butter is to divest it of all the particles of buttermilk. If the cream or milk has made *bonny-clabber*, there will inevitably be small particles of it distributed throughout the whole mass of butter, and unless they are entirely removed in some way, that butter will most certainly become rancid. Working the butter in cold water will dissolve all these particles of congealed milk, and the water is easily worked out, or should a few drops remain, it will unite with the salt and form pure brine. If there is any other manner by which the butter can be freed from the milk more easily, I should like to know it.

My butter, although "spoil'd by washing it," when packed in a pot or keg, with a clean cloth pressed on the top, and a little brine on the top of that, say half an inch deep, will keep a year, as sweet as ever unwashed butter was, is, or can be kept in any manner whatever. These are facts. Now let us have the facts in opposition to the cold water system.

I do not wonder that so many object to washing butter, for it is a lamentable fact, that there is a great antipathy existing against the use of cold water, either as a beverage, or for ablution.

Tea and Coffee.—Will somebody tell me what is the value of these articles, as diet? Will somebody tell me whether the use of tea and coffee adds to our health or happiness, or length of life, or whether we enjoy our meals any better than we should do if we had always been accustomed to drink water?

Chess.—[See Dictionary signification.]—"A difficult and abstruse game." "Abstruse—hidden, obscure, difficult."

Now, if we did not know that the lexicographer intended to explain the meaning of the *game of chess*, the readers of the agricultural papers for a year or two past would suppose that he had intended it to allude to the abstruse game of disputation, that has been carried on about chess, and upon which, I presume, that a majority of the readers have come to the conclusion, that the subject is a very abstruse one.

Curing and Pressing Cheese.—A neighbor of mine has been in the habit for several years of stacking his cheese in a hay stack. He takes them as soon as they become firm, and making the stack some three or four feet from the ground, as smooth and level as it can be, puts on a course of cheeses, being careful that they do not touch each other, or come too near the edge, and then builds on the hay two or three feet, and then another course of cheeses. In this situation they finish curing, and are preserved from frost until spring. The plan is new to me, but perhaps not so to your readers. At all events, it is worth trying. I would recommend any person, however, to try it only on a small lot at first, until he satisfied himself personally that the plan is a good one.

Shearing Lambs.—I have satisfied myself by experience, that it is not profitable to shear lambs.

Oyster Plant, or Salsify.—It is surprising that so few persons cultivate this delicious vegetable. They are planted and cultivated similar to carrots or parsneps, and like the latter, may be suffered to remain in the ground through the winter, and dug in the spring as soon as the frost is out of the ground. They are cooked in different ways. One is to boil them in clean water, and mash them and mix with flour into batter and fry them. Another, to cut them up in small mouthfuls, and after boiling soft, make a gravy of flour, butter, &c. and add to them, and really they are a rich substitute for oysters.

School Books.—There is a criminal fault existing in community, not only in the quality of the matter of school books, but in the manner that they are printed. I have of late observed several school books, printed with a very small type, upon poor blue looking paper, and in every particular bore a near relationship to "Pindar's Razors." No good man would be guilty of publishing such books for the use of children. It is a down right robbing of their honest rights. It is sufficiently painful for a child to learn to read out of good round fair print. To illustrate, I beg you to put this article in such type as should only be used for children's reading books. It is of no consequence that it takes more paper. That article is cheap, and for school books, should always be of the best quality. And I hope every man who reads this article, will hereafter reflect when about to purchase, that in buying one of these made-to-sell cheats, he is about to do a positive wrong to his child. Buy none but the best. See that the type, paper, and binding are good. And finally, be assured that this good advice is given by one ardently devoted to the cause of education and human improvement, and your old Indiana friend,

SOLON ROBINSON.

Lake C. H., Ia., March 28. 1841.

[* It will be very acceptable.—Eds.]

Agricultural Papers.

Messrs. Editors—To adopt the language of the more refined sex, "I love an agricultural paper most dearly." It is so, for the reason that it treats of matters with which I am connected professionally—it informs me of the progress towards perfection, which is making not only through the length and breadth of our own beloved country, but throughout the civilized world, of that art, above all others, the most noble and useful, agriculture. This is quite natural. The lawyer, if he has a soul capable of expanding beyond a "good fee," will fondly and anxiously desire the amelioration of all laws which govern and bind the civil compact, and his bosom will swell with pleasurable emotions, at every advance which is made towards perfection in this important particular. This is true, also, of the physician of elevated mind. Does he not feel a pleasure, when reading in the periodical devoted to his profession, of the improvements and new discoveries which are daily made to heal the diseases and mitigate the pangs of his fellow mortals? And does not increase of skill depend very much on his acquirement of this progressive knowledge? This is surely so. How is it with the good divine and the philanthropist. Is it not the inmost desire of their hearts, that civilization and christianity may cover the whole earth? And were it not for the periodicals and papers devoted to these noble objects, how meagre would be the information, and how tardy would be their advance! The man of science thrills with unqualified pleasure, when reading in the paper devoted to his pursuits, of the progress being made in those matters to which inclination or necessity may have impelled him to devote himself. Now, why is all this so? The cause is to be found in that natural and deep-rooted desire of the human breast, that the moral and physical evils of the world may be lessened; that yearning after perfection in all that pertains to man's temporal condition; and the *means* by which these exalted ends may be attained, are regarded accordingly. This is precisely the reason, why I love an agricultural paper: because it is a means and the most efficient of all means, to elevate to dignity, and practically promote that noble calling, of which I am proud to acknowledge myself an humble member.

I see in the pages of the Cultivator, the surest evidence that that formidable obstacle, which, until recently, existed in our country, to retard the advance of agriculture, is broken down and destroyed. I refer to the ridiculous idea which prevailed, in the northern states more particularly, that the profession of a farmer was ignoble and vulgar. Also, of the downfall of another prejudice equally formidable and ridiculous, that '*book farming*' was injurious; that it was a sort of a 'will o' the wisp'—a false light, which led men through senseless experiments into bogs and swamps. Aye, true, indeed it is, that 'book farming' has led men into those miry regions, but not in the sense above conveyed. Instead of being an illusory light, it has proved itself a safe and substantial one: a light which has conducted men through the supposed irreclaimable swamp, where dwelt only the croaking frog, where grew nothing but the profitless brake, and from which was emitted exhalations destructive of health and life. 'Book farming' is the very light which has pierced these foul vapors, dispersed them, and in in their place is exhaled the breath of sweet flowers, and "tasted spicy and delicious fruits." Has not 'book farming' taught us to grow four blades, where was only one? Go to the fields of him who has kept pace with agricultural improvement, by reading and experiment, and then to those of the ignorant dolt, who fancies that perfection in farming was acquired by his grandfather, and that he has inherited it, and mark the contrast! and if it will not convince that agricultural papers are safe and substantial lights, then there is nought in demonstration.

But let us come at once to a plain and obvious point in this matter. What is book farming? Is it any thing more or less than a record of the experience of farmers in all that pertains to the cultivation of crops, management of their stock, and the result of investigations of scientific men in those laws which govern and influence the vegetable kingdom? This is all, and nothing more. Who and what are the three hundred men whose communications are seen in the last vol. of the Cultivator, but practical farmers; and what they have chosen to publish, is it less to be believed than if they had "talked it off?" Surely not. Well, then, the upshot of the whole matter is just what is above stated, that the *written and published experience of farmers is that which constitutes 'book farming';* and, therefore, how silly and unfounded is the prejudice against it.

But permit me to refer, briefly, to the unfounded prejudice, just alluded to, which is destroyed, and happily, among the things that were, namely, that the farmer's calling was *vulgar*, and beneath the educated and "well born."

It is very true that this prejudice did exist to that extent, that farmers themselves quailed under its influence; and their sons were *driven* into other occupations, seemingly for the purpose of saving the family from further degradation, and to elevate a part, at least, to the level of those pursuits, fancifully conceived to be so much more exalted and reputable. It was also thought that the profession of a farmer was too humble to be a lever to elevate to political and other distinctions: that it was too simple, because it apparently; required only physical drudgery to conduct it; that the natural sciences were too remotely connected with it, to bring into exercise any of the intellectual powers, or cause profound investigation. But what a mighty change has been effected in all these particulars throughout our country! Do farmers in general feel it any longer necessary, with a view to their elevation and respectability, that their sons should be sent *behind the counter*, carry the *pill bag*, or "*take to the law?*" No. Do not those slippery gentlemen, called politicians, now take off their hats to us, *after* election, with as much grace, cordiality and respect, as *before* it? Yes. Are not statesmen themselves tillers of the soil, proving that the occupation is not incompatible with the highest political distinction. But why proceed to adduce further testimony, when such abundant evidence is before me in the columns of the Cultivator, to prove that the profession of the farmer is no longer considered ignoble and beneath the attention of men of learning and talent. But think you, Messrs. Editors, that very many of the contributors to your invaluable periodical, or others equally endowed, twenty-five years ago, would have been *caught* with their names appended to agricultural essays? I think you will accord with me, in giving a negative answer. It is now appreciated as an honor by any man of whatever profession, to come before an assemblage of farmers; to extol agriculture as man's noblest pursuit; to dwell on the virtues it inculcates; to be able to grasp the keys of science, open the doors, and expound the sublime and mysterious operations of nature. Yes, it is at last ascertained that science has something to do with the successful cultivation of the soil; that the farmer's great book of instruction, is the *book of nature*, and how profound! and that in proportion as he acquires a knowledge of the laws and influences which govern the vegetable kingdom, so far does he become possessed of the true theory of agriculture; and that he who departs least from those laws, is best rewarded in its practice.

Since we cannot all dive and explore these mysteries, we are necessarily dependant on those who have; and hence, how vastly important is an agricultural paper, to spread before us, in the cheapest form, the result of their profound investigations. What is the true philosophy of all knowlege? Is it not to elevate to dignity and perfection, the moral and intellectual powers of mankind; to mitigate the physical evils incident to his temporal condition, and thereby promote his happiness? This is indeed a truism. Of the countless means to effect all this, I consider an agricultural journal one of the most important, for it is designed to lessen our physical toils, and to increase the rewards consequent of them. But I forbear, gentlemen, to encroach further on your valuable columns. I was prompted to say something on the subject, upon reading the "Hints to Correspondents," by Mr. Chrisman, of Virginia. The gentleman is very correct in saying that "in all experiments in agriculture, it is important that the character of the *climate*, and the character of the *soil* should be known." I have observed with considerable regard, from time to to time, an omission to state these and other important particulars, by correspondents of our agricultural journals. It seems to me doubly important that these matters should, hereafter, be more strictly attended to, for the reason that the Cultivator circulates the length and breadth of our vast country. Let every correspondent give the county and state of his residence; and, allow me to add, let all be extremely cautious in communicating the results of their experiments. They should, in all cases, be most thoroughly tested, lest they mislead. It was observed by the elder Pitt, in one of his famous orations, "that confidence with the aged, is a plant of slow growth." So it emphatically is with many farmers yet, in regard to agricultural papers; and peradventure they are only once led astray, by following some new, but ill tested experiment, the plant of confidence will be slow to revive, and in many cases wither entirely. Let us look well to these matters, my brother correspondents, and by so doing we shall preserve the deservedly high character which the Cultivator has attained. Let us endeavor to exalt it to a *text book*, that in case of controversy or doubt, a reference to it will be considered the last "court of appeal."

Your friend, L. A. MORRELL.

Lansing, Tompkins Co., N. Y., Feb. 13, 1841.

Culture of Tobacco.

Messrs. Gaylord & Tucker—In looking over your valuable paper, I observed you expressed a wish that some of your subscribers would give an account of the management of Tobacco. Having been a planter for many years, I will offer to you what information I have on the subject. In the first place, to raise the plants is of the utmost importance, for which purpose we select a warm exposure on a south hill side in the woods, (new ground being always preferred,) clean off all the wood and rubbish, rake off all the leaves, and then pile on pine brush, say about from two to three feet thick, all over the bed, and then set it on fire; (the brush should be got and put in place any time during the winter, and the beds seeded as soon as the frost is out of the ground;) after the brush is burnt out, rake off all the large coals, and dig up the bed with hoes, taking care not to go below the soil, and taking out all roots as you go; then rake off the bed with a garden rake, and sow the seed; then go over the bed with a light brush, (with the hand) and be careful not to put the seed too deep in the ground, after which tread the bed all over with the feet, so as to make the ground close and compact; and then cover the bed all over with a light covering of brush, to protect the plants as they come up, from late frosts; pine brush is the best for that purpose; after the plants get a good size and there is no further fear of frost, take off the covering of brush, and you will then find it necessary to take out the weeds from the plants, which must be done with the hand, (the hands must take off their shoes so that they will not bruise the plants.) After removing the weeds you will then put over the bed a top dressing of very fine manure, which you may continue from time to time as you think proper; the beds require constant picking, as we term it, to keep down the weeds; the plants will be ready to remove about the last of May or first of June, when they are to be drawn out after a rain and transplanted in the ground previously prepared in the following manner.

The ground should be of the best quality, and a good clover fallow, plowed in the fall, manured and cross plowed in the spring, (just before planting) well harrowed, and then laid off with a plow at three feet each way; every square thus made to be scraped with the hoe to a hill, in which the plant is to be set; after which it is to be worked very much like corn, with the plow, cultivator and hoe; it will take three months to ripen, when it will be fit for housing.

I should have stated, that during the time it is growing it will put out suckers from every leaf, which must be broken off, taking care not to break the leaf from the main stem. It will also put out a blossom from the top, which we call in the first stage buttoning, and which must be broke off at about two or three feet from the ground, so as to make the plant spread and prevent its running up too spindling; when the plant is ripe, it will assume a spotted and yellowish appearance; it is then cut and suffered to lay in the sun for a short time to make the plant fall, and then can be picked up and carried in carefully to the house without breaking. It is then put on sticks and hung up in the house to dry; when dry and during a moist time in the spring, or late in the winter, it is taken down and the leaves stripped from the stalk, tied up in bundles, keeping the different qualities separate from each other, and then put down to condition, as we call it, that is, it is put in large bulks and weighted down, where it will go through a sweat; you must watch it, and as soon as you find it begin to heat, take it out, hang it up in the house to dry, and after it has thoroughly dried, the next damp spell take it down, just in order not to break, and put it again in bulk; it is then ready for packing, and I would advise any of your correspondents, or others that make tobacco, to use one of Mr. Murray's presses for packing tobacco; they can be had of Mr. Murray, on West River, A. A. County, Maryland, and are the best ever used; they are in common use in the tobacco growing parts of Maryland, and preferred to any other; they will pack from ten to twelve hogsheads a day, and by the old plan we could never pack one a day. If this information will be of any use to you, you can use it, and I shall be pleased to have contributed my mite to a good cause, and you may hear from me again. A Planter.

The Elms, March 10, 1841.

We shall be glad to receive the plans, &c. spoken of in the note, which accompanied the above.—*Eds.*

Cotswold Sheep.

Messrs. Gaylord & Tucker—Permit me to give you a short statement of a small flock of Cotswold Sheep, which I purchased last summer from those imported by Messrs. Corning & Sotham.

My purchase consisted of eleven ewes and a buck—eight of the ewes were yearlings, having lambs this season. They have been fed through the winter on hay and turneps, no grain whatever, being given to them until after lambing, when a few oats were fed to the ewes. Unfortunately for the rapid increase of my flock, 8 of 10 of my lambs were bucks.

About three weeks since I sheared them—their clip averaged 8¼lbs. per head. My buck sheared 12¼—and one ewe 11¾ lbs.

I had the misfortune to lose, early in April, what I considered my best ewe—a very large and handsomely shaped animal—whose pulled fleece weighed 11lbs. I have her lamb of last spring, which promises to be as good as herself. The remainder are all in excellent health, and in capital order—and the ewes good milkers. The ewe I lost was, at her death, as fat a sheep as I ever saw, even when thoroughly fed for the butcher—and I fear that was the chief cause of her death, which was sudden, being apparently well a few minutes previously, for, on examination, I could find nothing that would would indicate disease I am, very respectfully,

J. McDONALD McINTYRE.

Albany, June, 1841.

Letters from West Tennessee.—No. 2.

Messrs. Editors—Our latitude is, I believe, just 35°—some eight degrees nearer the equator than your city of Albany. There is, of course, all the difference in the world in the climate—very perceptibly so. We have seldom much winter before christmas, nor do the farmers make any calculation for frost before the latter days of October. Snow sometimes falls to the depth of one or two inches, though even this is rare.

A greater fall than this has been known, but it is exceedingly unfrequent. And of such power are the sun's rays at mid-day, that with a clear sky a few hours will dissipate it all. I have known it to lie upon the ground for several days, but the fact of its rapid dissipation is of most general occurrence. One or two inches, is for the most part, the depth of frost in our coldest months. Indeed, you can form your own estimate of this fact, when I state that it is very rare to pass the month of January, without some plowing done. During the past winter, which was unusually severe, the thermometer on some occasions was as low as 12 degrees of Fahrenheit's scale—but such extreme weather as this was of short continuance.

We have a great deal of rain, however, in the winter and spring, which retard farming operations very much. The summers are, of course, hot, but not so oppressively so as might be supposed. I have suffered more from heat in the northern states than here, owing to the fact of a more general prevalence of refreshing breezes in the south, and owing, too, to another cause, that here, we make it a matter of more attention to be shielded from the sun's rays. Any undue exertion in the heat of the day is overcoming.

April and May are lovely months—and nothing, I am sure, can surpass a Tennessee autumn. Indeed, and in truth, a lovelier climate than southern Tennessee and northern Mississippi, there can be none upon the broad surface of the American Union. North Mississippi is quite new and is, now in rapid progress of settlement. 'Tis but some five or six years since its purchase from the Chickasaw Indians, and already large and flourishing towns have sprung up as if from a stroke of magic. Holly Springs, the county seat of Marshall county, is quite a large, wealthy and agreeable town—its growth has been rather too rapid, some think, but this is a fault of Mississippi generally, and is one cause of the present depression there.

I have heard gentlemen who have traveled considerably in the south and south-western country say, that this part of Tennessee and the northern counties of Mississippi is the very choicest country of all they had seen, either as regards fertility of soil, loveliness of climate, intelligence of people or convenience to market. The great "father of waters," the Mississippi river, affords a very rapid communication both north and south. Louisville, Cincinnati and St. Louis are but three or four days' journey distant, and New Orleans, which is some eight hundred miles below, seems as a neighboring market town.

The general appearance of the country here is rolling, and in some places rather broken. The soil is purely alluvial, and totally destitute of stone. The clay stratum is twenty or thirty feet deep and often deeper. But for the most part, at this depth a light sand and gravel is encountered. Stone lying upon the surface, is a very rare sight here. Various theories are afloat regarding this broad scope of alluvial country, known generally as the Mississippi Valley. Some suppose that the bed of the river has, in the lapse of ages, been changed: this doubtless is true, but a theory supported by many and apparently upon good ground, is that the Gulf of Mexico had once its bed between the Alleghany and the Rocky mountains, and that it has receded thence—these, however, are speculations for the curious.

Memphis is situated upon what is called the fourth Chickasaw bluff. This ridge terminates there abruptly at the river, and the highest point may be some 60 or 70 feet above the bed of the river. According to Bancroft's United States, it was near this place that De Soto, the Spanish adventurer, crossed the Mississippi in 1541. One of the counties in North Mississippi is called De Soto, and its seat of justice is called Hernando; an appropriate tribute to the discoverer of Mississippi. *Fayette Co., Tennessee, May,* 1841. E. H. K.

The Herefords and Short Horns.

Messrs. Editors of the Cultivator—I have been induced to take up my pen by the perusal of a controversy between Messrs. Randall, Hepburn and Sotham. I have been acquainted with the Hereford cattle for this last thirty years, as a grazier, dairyman and butcher. My father used to graze about fifty, and dairy about seventy cows, of different breeds, Long Horn, Short Horn and Herefords, in Oxfordshire, England. For feeding, the Herefords are not surpassed by any breed I have ever seen; for the dairy I do not say they are invariably good milkers, though there are many of them very good. I never kept an account of the produce of a single cow, but one of my neighbors says he knew a Hereford cow that made sixteen pounds of butter per week. As a butcher, which business I worked at in London, and afterwards followed in Berkshire for eight years, I say the Herefords cut the best stall of beef I ever put a knife in. Mr. Hepburn takes Youatt for his author; and by his description is led to believe the Herefords to have been a trifling breed as lately as six years ago. I know them to have been as good thirty years since as now; and whenever they have been shown against the Short Horns, have oftener gained the prize than their antagonists. Mr. Youatt must have been prejudiced in favor of the Short Horns, was ignorant of the qualities of the Herefords, or got his information from some one no better informed than himself. Mr. Hepburn very ingeniously endeavors to impose on his understanding by supposing the Herefords of Mr. Sotham to be the produce of a stolen cross with the Durhams. I have no doubt but Mr. H.'s experience, if he lives long, will convince him that his supposition was erroneous, and that he was misleading the judgment of the community and doing injustice to the breeder and importer, by supposing them guilty of imposition. I should say as a breeder, the Herefords need no such cross; but I should say as a breeder that many of the Durhams, some of even Herd Book pedigrees, would be materially improved by a cross with the Herefords, as having a tendency to lengthen the rump and widen the hip of those whose edge or round bones are wider than their hips, the rump short and low, the tail high, and the skin as tight over their rump as if stretched over it with a pair of pincers. Such animals have a thick heavy thigh, the thick coarse muscles running from the round bone to the hock, forming a thick coarse buttock, supported by a large boned, coarse leg; the sides, as Cully describes, being one laying of black flesh across another, the shoulder bones large, the points projecting. Such beasts are sure to be bad handlers; never get very thin, and never get fat; will get fleshy, but when it is on is no better than bull beef. With such animals, a cross from the Herefords would be a great improvement. I have handled many Durhams with high pedigrees, with all the above objections. I never yet put my hand on a Hereford that was not a good handler. My opinion of the Herefords is, that they are the nicest breed of cattle, taken for all purposes, that walks the earth, and would have had some in Ohio long ago, if my means had been equal to my wishes. I remain, gentlemen, yours respectfully,

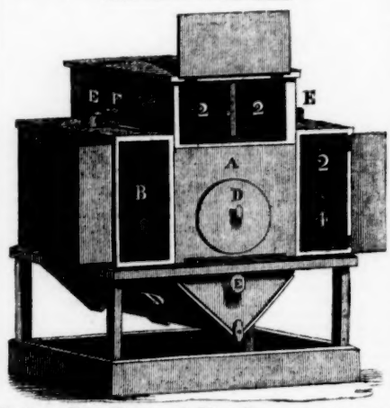
WILLIAM KINGHAM.

Springfield, Clark Co., Ohio, March 11, 1841.

Grafting the Peach with Success.

Messrs. Editors—I am not aware that any process has been devised for grafting upon the peach stock, with any certain prospect of success. Experimenters doubtless have often succeeded in rearing grafts upon peach stocks, but more often failed. A gardener in my neighborhood informed me that he once grafted upon one hundred peach stocks and all the grafts died, and most of the stocks. (He was always successful in grafting upon other kinds.) Last year I was induced to investigate the matter with a view to devise some means of obviating this failure, as it is desirable in many cases to graft in lieu of budding, persuaded that although the discovery might be of no great practical utility, yet it would be an interesting acquisition to the science of arboriculture. The peach tree is of more rapid growth than any of our orchard trees, and frequently with us, in congenial soils, the first year from the seed, attains the height of six feet, with stems from one inch to an inch and a half diameter. The circulation, of course, must be very active, and the sudden check from heading down such a tree, will, in many cases, destroy it. But should it live, the roots continuing in a state of activity, the cion is overflowed, as it were, by the sap; that is, the sap flows so fast from the wounds, as to prevent the process of granulation, by which the cion is united to the stock. To graduate, then, the supply of sap to the wants of the cion, is the primary object, and the measures necessary to secure this condition, are just those which tend to preserve the life of the stock after heading down. To carry my purpose into effect, I proceeded contrary to some of the ordinary rules for grafting. In the middle of July, I selected the cions from thrifty trees, with four or five eyes, taking care to choose those which contained leaf buds. The stocks chosen, were moderately growing instead of thrifty stocks, and were trees of the growth of that season from the seed. Before heading down, I passed a long sharp knife down entirely round the tree, and severed all the lateral roots at the distance of three or four inches from the trunk, according to its growth. This done, the trees were headed down at a point where the stem was just the size of the cion, or a little larger, as the cions were inserted a little on one side of the pith. The insertions were made in the ordinary way of cleft grafting. The cions were then secured by a narrow strip of sheet lead, wound spirally over the whole length of the cleft, and a small ball of grafting clay put over the whole. To my gratification every cion inserted in this way grew off finely, and the coming season will doubtless make handsome trees. I do not know that the lead binding or mode of insertion is essential, and although I have tried no other plan, yet I presume that other methods will answer equally well, provided the preliminary steps are properly attended to. On other stocks I have grafted with success, with no other binding or protection than the strip of lead, and have used lead ligatures with great expedition and success in budding. The introduction of lead ligatures was merely an experiment with a view to expedite grafting and budding in large nursery operations. Thus far I am inclined to give the preference to the old methods. When heading down the stocks, I took care in every case to leave either one or two small shoots, some leaves, or several nascent buds in order to continue all the functions of the tree until union had taken place between the cion and the stalk. As soon as the buds of the cion began to put forth, all below upon the stock was pruned off. When the scions were taken from the trees, the leaves were all removed as in budding, leaving only a small portion of the foot stalk. The clay and ligatures were removed in the fall when vegetation had ceased, and the wounds were all well closed. I am not sure that it is absolutely essential to leave any thing growing on the stalk, and regret that I did not try some without. CH. G. PAGE, M. D.

Washington City, Feb., 1841.



Perfect Bee Hive and Non Swarmer.—[Fig. 64.]

This cut (fig. 64,) represents the hive placed in the Apiary, when the observer stands in the hall on its back side, where the bee manager performs most of his duties in managing his hives, out of the way of his bees at work. When the collateral B, on the left, and 2, 4, on the right, are both added, the hive is used as a Non Swarmer; when both are off it is used as a swarmer. The center box, including both apartments, upper and lower, holds one bushel and a half, not including the space within the angle subtending the square box, or lower apartment. When the collaterals are added, the hive holds about two bushels and three-fourths. The principles of this hive may be adapted to any hive of a square form as well as this, to wit, the box hive, cape hive, subtending or piling box hive, as well as the Vermont hive.

Specification of the uses of the Perfect Bee Hive.

The aperture through the center of the right angle bottom board marked D, readily discharges all filth that falls from among the combs, at the same time its outer projection endwise, opposite D, forms a most convenient alighting place for the bees, and secures them from driving winds in chilly weather.

The ventilators, six in all, marked E, are made of tin tubes three inches in diameter, covered on the inside of the hive with wire screen, and with wire gauze the inside of its outer projection, so that when the whole is covered with a cap on the outside with corresponding holes, ventilation may be graduated at pleasure.

The thermometrical chamber, seen at F in the cut, is used only as a deposit for that important instrument, which will show at all times the condition of the bees contained in the hive. This will determine the required quantity of air to cool the hive below swarming temperature, as well as the necessary heat to keep the young broods in a healthful condition, and also determine the most appropriate time for dividing off swarms, which can be done with perfect success and certainty only in the swarming season.

The collaterals seen on the right and left of the center hive are added or removed at pleasure by the use of slides made of sheet iron, one of which is cut with curves in such a manner as to correspond with the wood or cork stops which are inserted into apertures in the sides of the hive, (these materials being non conductors of heat and cold,) and when removed admit the bees and animal heat to emanate into the collaterals, both of which may be boxes, or one may be a box as marked B in the cut, and the other a chamber containing drawers marked 2, 4, which may be removed by taking off the whole chamber at once.

As a full illustration of the uses and management of bees in all the classes of hives to which these principles may be adapted, would more properly come into a volume rather than in a single newspaper essay,—I only add that a swarm of bees weighing less than ten pounds when first hived, should be confined to the swarming hive until their increased numbers require more room, when the collateral box may be added. In all cases the box is added first; afterwards the chamber, but no apertures should ever be left open so as to compel the bees to warm by their animal heat any more space than they occupy. JOHN M WEEKS.

P. S. Any person who shall onclose $5 to the proprietor, will be entitled to one individual right, and will be furnished with cuts and drawings of all the hives, instructions, &c. will be forwarded. Territories will be offered on liberal terms. All letters of inquiry must be post-paid. J. M. W.

West Farms, Salisbury, Vt., June, 1841.

Destruction of the Canada Thistle.

Messrs. Editors—I see in the March number of the present vol. of your valuable journal, an inquiry as to the best mode of destroying the pest of the farmer, the Canada thistle. Now, for the benefit of the inquirer, and all others that it may concern, I will state how I destroyed a large patch of them some years ago; perhaps others troubled with them may destroy them in the same manner. I had a bed of them on my land, (I then lived in the state of Vermont,) covering some six rods of ground, which grew very rank and thick; the lot was sowed to wheat, and when the wheat was being harvested, I directed the cradler to leave the thistles standing, as they grew so stout that he would be in danger of breaking his cradle. I let the thistles stand until about the middle of August. I then took a sythe and mowed them in the middle of the day, when the sun would be the hottest, raked them up and carted them to the barn, leaving the stumps exposed to the sun. I recollect that the blow, (so called) had just begun to escape from the bud. The thistle did not sprout at all that summer or fall; and the next spring I could have held all the thistles that grew on the whole patch in my two hands at one grasp, and they were puny sickly things. I have no doubt but that the exposing of the stumps to the burning rays of the sun, was the cause of their destruction.

Lockport, April 7, 1841. T. T. ROBERTS.

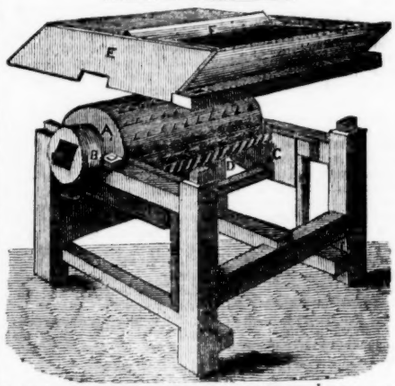
Culture of Indian Corn.

Messrs. Editors—Would it not be gratifying to many of your readers, if your correspondent, Z. Drummond, would favor you with another communication, giving in detail the mode in which his farm is cultivated, and the manner in which all the duties thereof are performed. First, are his lands laid off on the 3, 4 or 5 field system? How many acres in Indian corn, how many in wheat, how many in oats, &c.? How many in clover and other grasses? Is any portion of grass land fallowed for wheat? What is the average production of Indian corn to the acre? What the average quantity of wheat per acre after corn, and what on clover or other green fallow? What preparation is given to his corn land previous to planting, what amount of labor appropriated to its cultivation, and what the proportion of plow and hoe labor, &c.?

I think, Messrs. Editors, your subscribers in different sections of the country would afford valuable information to each other by communicating, through the Cultivator, their different methods of cultivating Indian corn, which would enable each reader to judge of the advantages to be derived from each method thus communicated, as well in labor saved, as extra profits to be derived thereby; and in order that I may not be misunderstood, I will give a brief statement of the most prevailing method practiced in this neighborhood. The field to be prepared for corn has the benefit of the previous year's crop of clover and all the manure that can be got on it; during the winter and early part of spring, the land is thrown together in 5 feet beds, with plow drawn by a pair of horses, mules, or a yoke of oxen; and when the time arrives for planting, two or three furrows are thrown together on the top of each bed, harrowed twice, and opened with the plow. Thus the land is fresh prepared, just ahead of the planters; the corn is dropped at distances according to the quality of soil, and covered with hoes or drags (harrows,) according to circumstances. When the corn is large enough to hoe, a stout furrow is thrown from the corn on each side, in such a manner that the furrows from each contiguous row will meet each other in the centre between; the corn is then hoed and thinned, and middles harrowed. By the time the field is got over, the corn is large enough to put the mold board to, and a furrow is thrown to the corn, from each side the row, and hoed a second time; the middles are again harrowed, loosened with the cultivator, or plowed, as occasion requires, which completes the second working. The third working is mostly performed after harvest by a light flush plowing and hilling with the hoe which finishes the crop. If this is bad practice, better would be willingly adopted by A Subscriber.

Warwick County, Va., 12th April, 1841.

☞ We join in the request made in the above communication, to Mr. Drummond, and hope he will answer the inquiries at his convenience—also in the request for information on the culture of Indian corn. "A Subscriber" would have added to the interest of his details, had he given us his method of harvesting, and the quantity raised per acre.—Eds.



Goldsborough's Corn Husker and Sheller.—[Fig. 65.]

Messrs. Gaylord & Tucker—I send you herewith a number of the American Farmer, in which you will find a description of the above, which I will thank you to copy, with the cut, into the Cultivator.

The difficulty of describing a machine, however simple it may be, without the aid of an engraving, has induced us to send you a cut of Goldsborough's Corn Husker and Sheller, which we will endeavor to explain satisfactorily to those of your subscribers who have written us on the subject, and others whose corn crops justify using a machine of so great power. As in all other agricultural machinery as well as the one now reverted to, we are determined to recommend only such as we have proved by practical experience to be truly excellent, thereby encouraging the confidence of planters and assisting the growing desire to introduce on their plantations labor saving machinery.

The above cut displays a machine substantially built. The operating parts are simple, plain and void of complication—requisites which are all-important to farmers who cannot conveniently resort to practical mechanics to instruct them how to arrange a complicated piece of machinery. Recent experiments have fully satisfied us that the machine now referred to is capable of standing unscathed under as great a body of corn as is possible to be fed into the hopper by three active men, and such is the rapidity by which the work is discharged, that 700 bushels of corn may be husked and shelled, or 1200 bushels shelled after the husk has previously been taken off, per day. The husks, (stripped and in fine order for mattress makers) cobs and corn all pass out together. A boy (with a common wooden rake) will separate the husks and cobs from the corn as fast as it is discharged from the ma-

chine. The cylinder, A, is studded with wrought iron knobs or short spikes, and partially rest on a spring concave bed, C, in which are placed round fluted iron rollers, D, which revolve as the corn passes through and greatly facilitates the work and reduces friction. B, a pulley six inches in diameter, which should be driven by a drum or band wheel (attached to mill or horse power gearing) of sufficient diameter to propel it about 700 revolutions per minute. E, and F, the cover and hopper thrown up to show the operating part of the machine.

We will furnish the above machine at $35. And to those who doubt the practical utility, strength of material, and great power of this wonderful machine, we will say, that we expressly guarantee them to be as perfect, and perform as effectually as represented.

Yours respectfully, ROBT. SINCLAIR, Jr. & Co.
Manufacturers and Seedsmen.

Baltimore, March 12, 1841.

Culture of the Strawberry, &c.

MESSRS. GAYLORD & TUCKER—I have seen with much satisfaction several modes described to you, in relation to the culture of the strawberry, and although they are much to be approved of, yet I prefer my own mode, because I believe it to be the more certain way of success in obtaining a good crop. Probably our soil may be more congenial, but be this as it may, I have succeeded in the one presently to be recommended (as my neighbors all know, having often shared in my success,) whereas by the other, annual cultivation and not burning, there was frequently a failure upon the same spot or spots of ground. I have always succeeded best in rich shelly land, and hence I have concluded that calcareous earth is the best for strawberries; ours (Back River) is a deep rich soil, sometimes black, always more so near the woods, which may arise from the increased quantity of vegetable matter therein, whilst the land bordering on the river is of a reddish or chocolate cast, excepting always where there are deposits of shell, and there it is almost black, because I presume that the lime, although it really gives no nourishment to the soil, yet it forces, and prepares even, animal and other putrescent substances already there; and *thus the color*. We have also a greyish soil, and although good, I think the black or chocolate decidedly preferable. Now as to my mode: I first prepare the ground by deep spading or by the plow also deep; the land is then carefully hand raked, and every root of all sorts carefully removed; the land is again, if required, spaded or plowed, and then chopped with a hoe, and again raked to level it. I then in the spring, *summer*, or fall, as *it* may be *seasonable*, set out the plants a foot square, in rows, sometimes by laying the land in beds four feet wide with an alley or path way between each bed for the convenience of gathering the fruit, as well also as to prevent the bruising or mashing, which will always shorten the quantity by shortening the season of bearing, independent of the loss otherways. I have again left the whole surface of the ground after due preparation as above, flat, and merely set out the plants one foot square throughout the whole plantation. I then obtain from the wood yard the finest rotted earth from the chips, and spread this around each plant, and after they have well taken root they are hoed and kept clean for the season, and as the next season approaches, I generally, about the 20th February, cover the plantation with dry straw of any sort, and then set fire to it; this burns the whole, the object of which is to put the blossoming back until there is little risk of frost; for as sure as the strawberry in blossom is thus caught, a blast almost total and entire takes place. I have practiced this ever since 1817, and have not failed more than once or twice during the whole time; and I believe the failure in those instances proceeded from inattention to the time of burning. I never, after the first year, have any thing more done to the plantation besides the burning, except an occasional sprinkling of wood yard earth in the spring. This plantation is continued four years; although I think three better, because in consequence of the vast accumulation of new plants, and the degeneracy of the old, the strawberry deteriorates in size, if not in flavor, probably in both after three years. I set out every other year a new plantation, and by this means have a continued succession, and when the four elapses, that plantation is converted to other vegetables. After the first year, as above observed, I never have them worked; I prefer grass to grow with the strawberry, for the plain reason that they then are gathered clean, the grass supporting the fruit from the naked earth; they never have grit upon them in consequence of rain or heavy dews, and of course never require washing or cleansing; the washing or cleansing by water ruins the fruit; it takes from it all the flavor and color. Those who keep their strawberry beds clean are put to much trouble to guard against the heavy rains, and of course washing, by always keeping around the plants in their bearing state straw or something else to keep them from the ground; and this is not always successful, because the straw, or whatever they may have around the plant, is liable to be blown away, and their finest fruit becomes tasteless if washed to clean it of the grit; and without washing, those who eat of it would soon swallow their peck; and this is the true reason that has induced me to work the plant but for one season, and that the *first*. I think also it is saving useless labor. I cultivate two sorts; their names I am not acquainted with, further than that they are strawberries of different shapes; the one a clear deep red, and something in the shape of a small apple, and varying from the size of a musket ball to less; occasionally, when not too much crowded, considerably larger. The other a dark red of an oval form, something in the shape of an egg, bears later and generally a larger strawberry; but I do not think its productive capacity so great as the other; as to flavor I discover no difference; all are strawberries, and as to *quantity* I could successfully appeal to my neighbors. As to perpetuating the same bed or plantation for a series of years, I shall endeavor to follow out your correspondent, Mr. I. Dille, for if it will answer the purpose that he informs that it does, it will save much in the setting out new plantations, and I can see no good reason why his plan is not a good one; it certainly is if successful; and as he has for a long time tested it, I for one will not raise a doubt until I have tried it and discover error.

Permit me to give you a recipe handed me by my wife for the making of green sweetmeats, handed to her by one of her near neighbors, which she has a little altered from the original, and which she has tried, of which I have tasted and think them equal to any West Indian sweetmeat or preserve that I have ever tried. The watermelon rind preserved in this way is a beautiful green and most delicious in taste. Cut the rind in long thin slices, and scrape off the pulp of a ripe or green water melon, (the green is the best) let it be put in salt and water and remain seven days; then take it out, put it in fresh water to remain three days; then take out and boil it slowly in alum water not very strong, with grape leaves over it about two or three hours; then take out and squeeze it well out of the alum water; then make a syrup of white sugar, at the rate of 1¼ lbs. sugar to 1 lb. of rind, and ¼ lb. ginger (to every 3 lbs. rind) to be added in the syrup, and more or less according to quantity of rind; then stew all together with rind until it looks clear; then take it from the fire until it is cool, and then put in essence of lemon according to fancy. I am told that the green sweetmeat may be thus made from any good fruit; I can answer for the water melon rind (and the green water melon is better than the ripe.)

For yellow sweetmeats, cut the rind of a ripe muskmelon in thick slices and put it in salt and water and let it remain three days; then put them in cold water one night; after this boil them in clear water six hours, changing them three times during the six hours. Then put them in a rich syrup and let them boil slowly five hours, or until the syrup becomes quite thick; flavor them agreeable to your taste.

Irish Potatoe pudding—"One pound of potatoes well boiled with cream, three-fourths of a pound of butter, ten eggs, and one pound of sugar."

JNO. C. ROBERTSON.

Spring field, Va. April 2, 1841.

Protection of Garden Plants.

MESSRS. EDITORS—Having tried to no purpose many methods of exterminating those little black insects which infest the young plants of the garden, I at length hit upon the following expedient, which I present to you with the hope that others may be benefited by it as well as myself. Take cotton batting, divide it as thin as will hold together, spread it over and around the young plants, and fasten the edges with small stones or small lumps of dirt. The insects, in their attempts to leap upon the plants, are entangled in the fibres of the cotton, and are prevented from doing mischief.

LEONARD LEWIS.

Warren, N. Y., May 31, 1841.

Inquiry.

MESSRS. EDITORS—Can you or some one of your numerous correspondents give me some information relative to the most effectual method of putting a stop to the ravages of a certain *moth?* It is in the form of a *yellow worm*, about three quarters of an inch in length, of about one-twelfth of an inch in diameter, and has six short legs near the head. Its body appears to be formed of ten or twelve bands or rings. I am thus particular in the description, as I am unable to give you its entomological name. It proves very destructive to woolen goods of every description.

It is with pleasure that I assure your readers of the efficacy of Mr. J. M. OLIN's remedy for bloated cattle, published in the May number of the Cultivator; having recently seen a cow that was badly bloated cured in a short time by giving her a single dose of the powder and lard.

With respect, L. C. LAWRENCE.

Inquiry about Woburn Hogs.

MESSRS. GAYLORD & TUCKER—Will you or some of your valuable correspondents give us the origin and history of a very pretty, thin and fine haired fleshy hog, which has been recently introduced among us, called the Woburn; what relation they stand to the Berkshires in point of size and disposition to take on flesh; how they would cross with the Berkshires, or if they would be better without any cross, and how and where they can be procured? Also, the Belties have been introduced among us, and they are said by some to be a cross of the Berkshire and Irish Grazier. The origin and history of this hog would also be interesting to many of your readers. The Woburns which I have seen will certainly lose nothing in comparison with the Berkshires we have here at the south.

Your Cultivator is doing much good among us. Our cotton planters begin to believe that it is not a money making business to export all their labor, and buy so important an article of consumption as pork. A. C.

Gainsville, Alabama, 3d March, 1841.

☞ Will Dr. MARTIN of Kentucky, favor us with a reply to the inquiries of A. C.? We should also be gratified if he would accompany his reply with a correct portrait of one of his Woburn hogs.

Short Horn Durham Cows.

MESSRS. EDITORS—The June number of the Cultivator contains a very interesting and valuable article from your worthy correspondent, LEWIS F. ALLEN, which communication contains an extract from the Yankee Farmer, where the Rev. Mr. COLMAN speaks against Durham cows as milkers. Among others he states that he has had the pleasure of seeing the improved Durham stock of the MESSRS. LATHROPS of South Hadley; that he thought them eminently beautiful, &c. Now if as observing a man as the Agricultural Commissioner of the Commonwealth of old Massachusetts, has passed over such a stock of Durham Short Horn cows, without noticing their milking properties, I would request of the MESSRS. LATHROPS to give an accurate statement in the Cultivator, of what some of their cows have done; together with the name of the cows, pedigree, from whom purchased, and if they please the price paid for them; that your readers may know they are really Improved Durham Short Horn cows, and not of the race that have no pretensions to Herd Book pedigree, with which our country is flooded.

SAMUEL W. BARTLETT.

East Windsor, Ct. June 21, 1841.

Wintering Hogs on Sugar Beets.

MESSRS. EDITORS—For more than two months we have given sugar beets to our hogs, and are well satisfied with the result; our only regret is that we have not more. Perhaps one reason why our experiment with sugar beets has resulted more favorably than the experiments of others, is because we have kept them warm, which I consider all important when kept upon vegetables of any kind. Experience has satisfied us of this Formerly we wintered our hogs in a good pen, having a tight plank floor, giving them a plenty of litter, feeding uncooked potatoes and corn in the ear, much the larger portion of the latter; for two seasons we have given them an apartment in the basement of a sheep barn, with an out door yard for them to run into, feeding them sugar beets until they are gone, and then potatoes, with a small portion of corn the whole time. The result is that much less value of feed will carry them through the winter in equally good condition than by the old mode, and as a consequence, if the same value of feed is used as formerly the gain will be in proportion, instead of just carrying them through. M. Y. T.

New-Lebanon, N. Y. March, 1841.

Large Pigs Again.

MESSRS. EDITORS—It had not entered my mind to make public the weight of my pigs (though I had just reason to feel proud of them,) until I observed in the Feb. No. of the Cultivator the statement of Jabe Pierce's pig, weighing, at 9 months and 10 days old, 372½ lbs., and of Mr. W. L. Smith's pig, weighing, at 10 months and 8 days old, 266 lbs.

The last season I raised and fattened a couple of half breed Berkshires, and slaughtered them the latter part of December, at the age of 8 months. The heaviest weighed 260 lbs., and the lightest 242 lbs. They were doing finely at the time, and at the age of Mr. Pierce's I have no doubt the heaviest would have weighed 300 lbs. They were taken from the sow when 6 weeks old, and fed through the summer on sour milk with a little scalded meal, and during September and part of October sweet apples and potatoes cooked together, with same quantity of meal; and say from middle of October to the time of killing, on scalded meal with a very little salt, preparing enough over night for next day's use, by which process a slight fermentation would take place. And here I would state my preference to this mode of preparing Indian meal over that of making hasty pudding, as I believe the mass to be lessened in nutriment in nearly the same proportion that it is increased in bulk.

In regard to what is called the Berkshire hog, of which there has been so much "said and sung," I am prepared to "go the whole hog" in his favor. But I am not quite sure that *one* cross with sows of fair size and proportion of our common breeds, will not produce as valuable swine for the farmer as any other breed whatever.

Hence the propriety of keeping the blood pure, (and I believe this remark will apply to most other animals,) for I am a disbeliever in the certainty of breeding from grade animals.

I have the sire of the above mentioned pigs, who was bred by Mr. Corning, I believe from imported stock, and coming 2 years old. His pigs, which are numerous in this vicinity, are first rate, and to prevent breeding in and in, which may be regarded as the greatest evil, I offer to dispose of him.

Mexico, N. Y., March 5, 1841. B. E. BOWEN.

Useful Recipes.

FOR THE STING OF A BEE OR OTHER INSECT.—Take a little mud from any puddle, and apply it wet to the wound, (renewing it if it gets dry,) for 15 or 20 minutes, or less time if the pain and swelling is gone. AMICUS.

CURE FOR THE SCRATCHES IN HORSES.—With warm soap suds wash the part affected, and with a cob or other rough substance rub off all scabs, then apply oil or hog's lard just so as to moisten the skin, then take a fine powder of hemlock bark and cover the parts well with it; a few applications will effect a cure. D. E.

CURE FOR MURRAIN.—I have a Durham Bull that was taken about a year since, with what is called here, the Bloody Murrian.

Symptoms:—Eyes sunk in the head, nose dry, bowels costive, the discharge brownish, urine the darkest bloody color, appetite gone.

Treatment:—I gave 1 lb. of salts, 1 oz. of nitre, and 1 cream tartar, for one dose; the next day another dose of the same. No appetite; the third day gave 1 pint castor oil. 4th day, physic began to operate, appetite rather on the mend, water still the same; dissolved 4 oz. of alum in 2 quarts of sour buttermilk for an astringent. It turned the blood, but made him costive; gave one more dose of salts, and turned him off the sick list, perfectly cured. WM. KINGHAM.

Springfield, Ohio, March, 1841.

CURE FOR SORE TEATS.—Scarcely a dairy of cows can be found in which more or less are not subject to sore teats, and from the irritation thus caused, much trouble in milking, and loss of milk ensue. The following preparation, if kept on hand and applied occasionally to such udders and teats as require it, will prevent or cure the disease. Sometimes the flies will be troublesome, if so add one ounce of assafoetida or aloes in powder, and incorporate it thoroughly with the ointment. Some times the teats are tender only. When this is the case, washing with weak salt and water is beneficial, and usually sufficient.

Ointment made of sweet elder, four ounces
Yellow basilicon ointment, four ounces.
Spirits of turpentine, one ounce.

Mix and well incorporate on a slab or in a mortar, and it is fit for use.

HOVEN CATTLE.—James Cooper, of New Jersey, gives the following as a cure for this dangerous complaint in cattle:—"Make a twisted band of straw the size of the wrist, and place it in the mouth of the animal, drawing it tight, and making it fast over the top of the head, just behind the horns; this will cause the beast to endeavor to rid itself of the inconvenience by chewing the band, and the act of moving the tongue and jaws will open the gullet and permit the air to escape." A cow dangerously attacked was treated in this way, and as soon as the straw was applied, the air rushed violently from the stomach, and the cow was saved.

STAGGERS IN SWINE.—In reference to an inquiry which appeared in this paper, a correspondent of the N. E. Farmer gives the following as a cure for the above disease:—"When it is found that one of your hogs has the blind staggers, no time should be lost; but you should proceed to give your hog as soon as possible, something that is warming within. The first remedy I ever tried was a mixture of sulphur, hen manure, and Cayenne pepper, with milk enough to make it as thick as porridge, given to the hog as warm as he can bear it. Now I give nothing but new rum and pepper, giving as much as I could make them take with a spoon. Before you give them any thing, it would be well to take some soft oil and pour upon the insides of their legs, and give them a smart rubbing with a cob. With these medicines I have cured those that seemed nearly dead, and if I were near, I would agree to cure all entirely of the blind staggers for 25 cents a piece."

CURE FOR BOTS IN HORSES.—I. I. Smith, Esq., who has been an extensive dealer in horses, informs the editor of the Southern Cultivator, that as a preventive or remedy for the bots, he feeds to his horses occasionally a quantity of the heads of rye which he keeps on hand for that purpose. He is convinced that the heads and chaff of the rye, cut out and effectually carry off the grub, and that if a horse be fed every few days in this way, he will never be annoyed by the bots. If preferred, the rye may be fed in the sheaf

Experiments in the Culture of Potatoes.

Oakland Farm, Southfield, Staten Island, April 22, 1841.

Dear Sir—Your sister made a visit to this farm during the past winter, and on seeing some of my large Rohan Potatoes desired me to send you a sample, which I was about to do when the Hudson river should be clear of ice. In the mean time I saw your communication in the Cultivator, (March number, page 66,) wherein your experiment with Rohan and Merino potatoes turned out in favor of the latter. Thus finding you in possession of the article, I was disappointed in the pleasure of sending you some of my crop of Rohans, and I therefore concluded to relate to you my experiment with them and other potatoes.

In 1840, I planted three patches of different varieties, in separate fields, all in rows, and after gathering the crops, measured the ground, and calculated the proportion of yield.

The first patch of early potatoes were of three kinds, viz: *Scotch Greys, Mercers* and *Kidneys*, cut in pieces and planted about a foot apart in the rows.

Of these, were planted 11 bushels.
The produce was 132 bushels.
The proportion of yield 12 bushels for one planted.
The ground occupied contained 35,856 square feet.

The superficial area of the patch contained over three-quarters of an acre, (an acre being 43,560 square feet.) The manure was distributed in the rows, and was horse dung purchased in New York, and as it subsequently appeared, was full of foul seeds. From the consequent weeds which infested the patch, the potatoes suffered, at a time when the pressure of other work and the want of hands prevented weeding. The tubers were also injured by being nibbled by bugs or grubs under ground, rendering the surface of many of them rough and unsightly.

The second patch contained late kidneys, which were small and planted whole, the same distance apart in the rows as the first.

Of these were planted 14 bushels.
The produce was 197 bushels.
The proportion of yield, 14 bushels for one planted.
The ground occupied contained 58,820 square feet.

They were manured in the rows with coarse unfermented barn-yard manure. The tubers were handsome, fine and smooth. There were also planted and grew in the same patch, a quantity of pumpkins and squashes, valued at $11·25. If we estimate the potatoes to be worth 37 cents per bushel, the value of the pumpkins and squashes will be equal to 31 bushels. If these be added to the potatoes raised, they will make the total yield 228 bushels, or sixteen for one planted.

The third patch contained Rohan potatoes, cut in pieces, planted in June, in rows the same distance apart as the two others.

Of these, were planted 2½ bushels.
The produce was 64 bushels.
The proportion of yield, 25 bushels for one planted.
The ground occupied contained 11,160 square feet.

These were also manured in the rows with coarse unfermented barn-yard manure. The tubers were large, fine and smooth, and not the least injured by insects.

When these potatoes were planted, I had no idea of an experiment, but it occurred to me afterwards that I might as well keep memoranda, and compare the results, which you have as above. The potato crop here, being of secondary consideration, no particular attention was paid to either of the patches. It will be seen, however, by the foregoing statements that the Rohans produced the largest amount in proportion to the quantity planted, and also to the ground occupied. These facts will more clearly be seen by the following table, calculated by the rule of three. Thus:

As 11,160	: 64 :: 58,820	: 337 +	instead of 197	the actual produce.
" 11,160	: 64 :: 35,856	: 205 +	" 132	"
" 35,856	: 132 :: 58,820	: 217 +	" 197	"
" 35,856	: 132 :: 11,160	: 41 +	" 64	"
" 58,820	: 197 :: 11,160	: 35 +	" 64	"

That is to say, if 11,160 square feet of ground will produce 64 bushels Rohan potatoes; 58,820 square feet (which contained kidneys,) ought to have produced, under equal circumstances, 337 bushels and a fraction, instead of 197 bushels, the actual produce. And so of the others.

In the above calculations, I have thrown away the fractions, indicating them by the sign + plus. The measurement of the ground, including headlands in each patch, was reduced to square feet, being easier understood and calculated than in acres and fractional parts of an acre.

These experiments, I think, are a pretty good test, and yet perhaps they may not be considered so by others, as the circumstances were not all equal. They were not planted at the same time, were not manured alike; one portion of the ground was overrun with weeds, and another had pumpkins and squashes in it. In two of the patches, large potatoes were cut into pieces, and in the other small potatoes were planted whole.—But notwithstanding these differences, the results may be worth noticing, and lead to something useful. Hence I deem it advisable to give them to you.

Your experiment was certainly not a decisive one. The season with you was unpropitious, and part of the potatoes you received and planted were spoiled by salt, and the remainder were probably injured. And I should suppose too, a priori, that the slaty clay soil of your farm, on the banks of the Wallkill, were not well calculated for potatoes.

Some persons have considered the introduction of the Rohan potatoes as a humbug, but from the various accounts I have read in the Cultivator and elsewhere, together with my own experience, I believe them to be superior producers. Doubtless, however, they will not answer in all soils, in all climates, and under every variety of weather and treatment. Some of the experiments made have been on a small scale, under favorable circumstances, in a garden well manured, and particularly attended to. Thus Mr. A—— produced from a single potato cut into small pieces, and planted in his garden, one bushel and a quarter. Mr. B—— raised thirty-seven bushels from one.—These and other instances of a large yield, have induced others to calculate a pro rata result when cultivated in the large way, and hence disappointment, because it is impossible in field culture, to bestow the same attention as to a particular and small experiment.

There has, no doubt, been considerable speculation in the recommendation and cultivation of this variety of potato.—The price has been too high, even allowing it to be a great producer, to be cultivated usefully and profitably. For, after all, it is only a hog potato, as, upon trial, I agree with Mr. Bement (of Three-Hills farm, near Albany,) that it is a second rate edible one, and will not be eaten by human beings unless they cannot procure better. As long, however, as the price keeps up it may be profitable to raise this variety of the solanum to sell for seed, as it is too valuable to be consumed by man or beast, while superior edible potatoes can be purchased at a less price. This period cannot last long, as when Rohans find their level they will be raised on account of their productiveness only to feed swine.

This time is fast approaching, as I have observed a new variety lauded under the title of the Sommelier potato, said to be more productive than the Rohan. This variety has been sold at from eight to ten dollars the bushel. Mr. C—— paid this large price for a bushel, planted them in his garden, and was grieviously disappointed: the produce being less than the Rohans which he had planted the year before. When such high prices are demanded for products of agriculture for seed, it borders too much on speculation for a prudent man to pay them.

The following circumstances induce me to believe that a new variety of the Rohan may be produced. I purchased a barrel of Rohans, and placed them in the barn until the beginning of June, 1840. On opening the barrel to cut the potatoes for planting, they were found matted together by long sprouts, and many of the eyes had growing from them small potatoes, from the size of a hazlenut to that of a hickory nut. They were closely attached to the parent potato by a single fibre, and had numerous fine fibrous roots an inch or more in length, diverging over its surface. From these, which were broken off and thrown among the sprouts, I selected a quart or two of the largest, gave some away, and planted the remainder in two rows by the side of the larger ones cut in pieces. These miniature potatoes came up more slowly than the parents, but as the season advanced they grew as well, and no difference could be seen between the large and small ones. When they were dug, the tubers were as large and productive as the others. The produce of the small ones filled two barrels, which I have preserved separate, and intend planting by themselves, to ascertain the result.

Remember me to your uncle, Dr. Green Miller, and to my former pupil, Dr. M. Wharry. Inform him that my health became so much impaired that I forsook my professional business in the city, with the hope of being benefitted by agricultural employment, and that so far it agrees with me admirably well, and I am much improved. Tell him I hear with pleasure of his increasing practice and reputation as a physician.

Yours, with respect and esteem,
SAMUEL AKERLY.

To P. V. C. Miller, *Shawangunk, Ulster co., N. Y.*

National Agricultural Society.

Messrs. Editors—As no subject treated of in your valuable journal is deserving of more importance, or will be attended with more beneficial results than the establishment of a National Agricultural Society, I beg leave, in aid of its former advocates to suggest to the American Farmers and Planters some additional advantages which will result from such an association. Besides the great benefits mentioned by your former correspondents, there is one which I believe equal to them all. You, Messrs. Editors, I have no doubt, have witnessed with pain and mortification the too frequent attempts of politicians, both at the South and the North, to arouse and enlist the prejudices of one portion of our hitherto blessed Union against the other. I believe that when our people come to meet together as farmers, as friends, actuated by the same feelings, having the same interests, and working together for the common good, that they will contribute more to remove those prejudices and to cause a more friendly feeling between different parts of our country than all the essays and speeches ever published. Our interests are common,—no sectional divisions should separate us. Another benefit to the agricultural community will be, that implicit reliance will be placed in whatever is published by such a society. You are aware with what doubt and scepticism many agricultural publications are now received. Agricultural, like political journals, too often have their prejudices and their favorites. Whatever issues from such a society will be always received as the *truth*.

If we can succeed enlisting in our cause the farmers and planters of every portion of the United States, it will not take a half a century, as now, for the improvements of one section to be known in another. Besides the National Journal, suggested by your very worthy, able and zealous correspondent, Solon Robinson, every paper in the Union would, no doubt, publish the most important information to be derived from this soiecty, and it would thereby be conveyed to every portion of the country. The Smithsonian legacy can be constitutionally appropriated to the establishment of a National Agricultural School.

This fund was given to the whole people of the United States for their general good. It is different from our National revenue. I believe that Congress has no power to appropriate money from the National treasury for any other purpose than those specifically enumerated by the constitution; and this opinion being pretty general, we need expect no further aid from that source. Yet I believe the *Smithsonian* fund amply sufficient to carry into successful operation such an institution, and when once fairly on the way, it can be so managed as to yield a revenue, instead of being attended with additional expense. With a farm, work shops, &c. &c. attached, it must yield a handsome income; at least it cannot fail to sustain itself. The surplus, if any, which may arise, after paying the necessary expenses of the institution, I would appropriate to the payment of the expenses of the officers and members of the society. Should we fail in our attempts to establish an Agricultural School, I would still more earnestly insist upon the formation of the National Society; and I hope all such as Messrs. Robinson and Garnett will not cease their efforts until we carry our point; and, though but a young man and a young farmer, if my feeble aid can avail any thing, it shall be at all times cheerfully rendered. F. R. G.

Mecklenburg, Va., May 15, 1841.

Messrs. Editors—There have been several communications in the Cultivator on the subject of a National Agricultural Society and School, by men who seem to be very zealous in the cause. Mr. Robinson, in his address to the farmers of the United States, gives his views, and invites others to give theirs. I will therefore give mine. The friends of the Society think the greatest difficulty will be in getting a Society organized. I think the greatest difficulty will be in making it useful after it is organized.

The communications of your correspondents, who recommend a National Society, are calculated to elevate the character and standing of the American farmer, and I very much admire them, and really think that friends Robinson and Garnett are benefactors of the human race and an honor to the profession; but when they treat of this great National Society, they are, as I think, but letting off some of their visionary notions. As soon as a National Society is formed, Congress is to be asked for half a million of dollars to establish a National School, from which the greatest blessings are to flow. This school is to be established in the city of Washington, or in some other city or town, where some two or three hundred boys are to be taught at the expense of the government. And what are they to be taught? Farming? A very appropriate place for that indeed.

I, Messrs. Editors, am a farmer, and a very poor one at present, but am in hopes that I may some day be a good one, and if I ever am, friends Robinson, Garnett, and others, will be entitled to a great share of the credit of making me such; but I cannot help deprecating the idea of an honest, independent farmer supplicating any other power but the Great Power that sends him sunshine and rain. To see a farmer lobbying about the halls of Congress, or the legislature, asking aid, is mean and low-lived. It looks too much like the bankers who depend on government more than on their own honesty and credit. One objection to a National Society is the great extent of our country, the difference of soil, climate and productions, so that what is interesting to one section is uninteresting to another, and the expense of such a society ought to be taken into consideration. Farmers ought to calculate as well as others; now suppose there should assemble at the city of Washington four delegates from twenty-five of the States, which would make one hundred; could they meet at a less expense than one hundred dollars each on an average? I think not,—that would make a sum total of ten thousand dollars; and what would the community get for all this expense? Why, the delegates might get a big dinner, a few sups of good wine, tell and hear some large stories, build a few castles in the air, and return home again. Now, Messrs. Editors, I suppose you would, for ten thousand dollars, distribute twelve or fifteen thousand volumes of the Cultivator, which I will venture to say would be of more use to the farming community than the great National Society, should it be organized and exist for ever so long a period. I am a farmer that wishes to see the character of the farmer exalted, and the science of farming understood and practiced, as much as any one; but my plan is, in the first place, to try and make myself a good farmer, and if I can by any means advance faster in the art than my neighbors, I hope they will profit by my example; and if every farmer that feels ambitious, would do likewise, we as a nation would advance full as fast as if we had a great National Society. Perhaps agricultural societies on a small scale, may be useful, but that is a debatable question. The spirit of competition raised in the minds of the ignorant is not always beneficial. Real information in the art of farming is what we want; the farmer wants to know how to raise grain, pork, beef, &c., at a less expense than the real worth of it after it is raised, and I think the best way to gain this information is by a strict observation of all the methods practiced around him, and a diligent study of the agricultural journals and works of the day, and when he becomes a first rate farmer himself, he will be a first rate teacher for his sons. Respectfully yours, F. BURT.

Coshocton, Ohio, May 25, 1841.

Making of Pasture Lands.

Messrs. Gaylord & Tucker—He who indulges in reading a political newspaper soon finds increased delight in the investigation of political subjects. The reading of romance begets a fondness for fiction. The constitution of man is such that the mind soon finds delight in those subjects upon which it may chance to be fixed, even though disagreeable at first. It is with agriculture as with all other subjects; he who reads monthly or weekly an agricultural paper finds soon increased delight and interest in the subject of agriculture. The accounts of experiments and improvements by those engaged in similar pursuits are but the seeds of new experiments and increased efforts to promote the common interest. Wishing that your paper may have its circulation greatly increased, not so much for your individual interest as for the good of the country, permit me to introduce the subject which I wish more particularly to notice—*The making of Pasture Land.* There are few farmers in this State who have not large, or considerable amounts of timber land, that is of but little value to them; not yielding annually as much as would pay the tax thereon, while their farm stock is fed mainly, summer and winter, from the corn-crib,—themselves the servants of beasts. When this unprofitable wood-land, if put into grass, would keep a sufficient or perhaps an equal amount of horses, cows and sheep without the use of a corn field at all. But we are disposed to plead our inability to grass our lands, when at the same time half the labor spent in this way would make us full as much as if spent in raising grain for our stock. In this latitude the most of farm stock will live ten months in the year on good blue grass pasture alone. But some object, that to grass their lands they must destroy their timber. To this I answer, that nothing need be destroyed less but the useless timber; the rail timber and valuable timber trees of every kind may be left, and fire wood for all time to come. But as the expense is probably the most serious difficulty, I have made a very accurate calculation of the cost of putting wood-land in blue grass. The calculations are made from the prices at this place; and for a section of land, or 640 acres, and for any smaller amount, the calculation may easily be made by a division of the cost of this amount. The useless timber is to be "deadened" or chopped round one year previous to sowing the blue grass seed; the fall before sowing the seed, the leaves on the ground should be burned off, and seed sowed the following spring.

Deadening one section, 640 acres, at 12 cts. per acre,	$76 80
½ bushel blue grass seed per acre, at $1,50 per bushel,	240 00
Sowing seed, 12 cts. per acre,	76 80
	$393 60

This ground should be fenced into four fields. The first field, of course, would have four strings of fence 160 rods long, the second and third which would be adjoining, would have but three strings of fence, and the fourth would have but two; fence nine rails high.

Fencing first field, 75 cents per hundred for making and laying up rails on fence,			$87 00
Second field,	do.	do.	65 25
Third	do.	do.	65 25
Fourth	do.	do.	43 50
Fencing 640 acres into four fields,			261 00
To which add cost of deadening, seed and sowing,			$654 60

And you have the cost of making six hundred and forty acres of pasture, $654·60 cents, or about 102 cents per acre.

The first year after sowing, the grass will be worth but little for pasture; the second year the grass will seed, and will be ready for grazing, and will improve every year for several years. It is quite astonishing to see how tall the grass will grow upon land in this condition. By the first of June, I have seen the grass so tall that the logs would be quite hid by the grass, which seemed to be stretching itself upward as though it was vieing with the tallest of the spice bushes. But what is still more pleasing, is to see a herd of cattle wading through and feeding upon this luxuriant grass, almost to their sides.—It is a matter to be much regretted, to see large tracts of woodland in almost every neighborhood, lying out, and of no benefit to the owners, when it costs so little to put it into grass and render it profitable to the owner. To show the great importance of thus grassing our woodland, I submit the following calculation for the first five years, so reasonable that none will doubt it:

1st year, deadening timber, yield nothing,	$00 00
2nd do. sowing seed, do. do.	00 00
3rd do. grazing to commence first of June, when the seed has ripened, graze five months, ten cents a month for each acre,	320 00
4th year, same,	320 00
5th do. do.	320 00
	$960 00

Which is almost one hundred per cent. on the amount laid out in the first five years. The second term of five years, the amount of grass will be one hundred per cent. more than the first five. The bushes in this time will begin to be destroyed by the feeding of the stock, and the logs and brush will begin to rot and disappear. Much may thus be added to the beauty as well as the wealth of the country; much added to our individual ease and comfort,—while we will be gratified by looking at fat cattle instead of the lank-sided ones that we too frequently see half famished, hunting feed along the lane sides during the summer months. With much esteem, yours,

Green Castle, Ind., Feb. 22, 1841. A. C. STEVENSON.

The Sugar Beet.

We make the following extracts from a communication by Mr. P. Diehl, New Oxford, Pa., in reply to Mr. Guthrie's remarks on the Sugar Beet. Mr. D. says:

"In this neighborhood, persons feeding the beet to their cows, readily procured two cents per pound more for their butter, than their neighbors, not using the beet, can for theirs. My hogs are wintered solely upon beets and kitchen slop, and I assure you, gentlemen, I have never yet heard them 'squealing for more after being filled with them;' nor do I know of any one who has better conditioned hogs than myself. I have also fattened solely upon sugar beets, beeves, which, when sold, were pronounced by the butchers to have been the best they had killed for five years preceding that time. I am at present feeding a lot of cattle with beets, which are absolutely in better condition than a lot purchased at the same time by a neighbor, and fed high upon corn.

"So much on feeding; let us now contrast the probable amount of profit to the farmer, per acre, from a crop of beets, with that from a crop of corn. Allowing, then, the average crop of beets to the acre to be 1,000 bushels, which is a moderate crop; it will be perceived that that quantity will fatten *eleven* head of steers in ninety days, at one bushel per day. And allowing the average crop of corn to be 50 bushels per acre, which, in all conscience, is high enough, it will be found to fatten only one and a half head in the same amount of time, feeding at the usual rate of one and a half pecks per day; leaving a balance in favor of beets, fractions aside, of about 800 per cent.

"Here, then, is a mass of *demonstrative* evidence, amply sufficient to convince any man not otherwise biased by prejudice or bigotry, that the sugar beet meritoriously, is entitled to hold a high place in the agriculturist's regard; and I appeal to every lover of science, nay, I appeal to Mr. G. himself, to say, whether it becomes any one to attack a science so prematurely, as he has done, in any of its departments or ramifications; a science, too, that so loudly calls for every feeling and every thought the philanthropist can bestow upon it. The following table and statement, taken from the "Farmer and Gardener," will show the amount of beets that can be raised from an acre of ground, and the number of cows that they will sustain for five months:

Average w'ght of beets.	Product of an acre in lbs.	Product in bus.	No. of cows which may be fed at a bu. a day, 5 months.
3 lbs.	65,380	1,039	7
4 "	87,120	1,452	9
5 "	108,900	1,815	12
6 "	130,680	2,178	14
7 "	152,460	2,541	16

"Now, we would respectfully ask, if these averages are not *low enough*; and if they be so, and we think they are, we would ask if an acre of ground could be put in any thing else that would yield so much solid and nutritious food as sugar beets? We unhesitatingly say so, and defy contradiction. And it is greatly in favor of beets, that horses as well as cattle feed upon them, not only with avidity, but with decided advantage to health and condition. Why, then, should farmers hesitate with respect to the propriety of this culture. Let them, if they choose, not go largely into the growth; begin on a small scale, say half an acre or a whole one, and we will risk the assertion, that they will never omit to raise them again, *provided they do the root justice in its culture*, for their is no food which can be given to a cow that constitutes so much towards increasing the quantity and quality, both of milk and butter."

Mulberry Hedges, Yellow Locust, &c.

[We think the following communication valuable, as it relates to a subject of much interest at the West, the formation of fences, and shows in a clear light what energy, directed by skill and intelligence, can do to remedy the want of fences, or of timber in a western prairie. There will be no difficulty in the management of the Mulberry hedges; as they will only require pruning and trimming as those made of thorn or other trees. It may be necessary, however, to be careful, until the fence is compact and close, to be cautious in stripping the foliage from the leading shoots, or such as are required for the closeness or stability of the hedge. In planting an orchard for feeding animals, nearly the same fruit is wanted that would be preferred for a family; that is, fruit rich and of fine quality, and in succession as long as wanted. The difference between sweet and sour apples *when ripe* as food for animals is not as great as some have supposed, but unripe sour apples are unfit for any animal. The Early Harvest, Sweet Bough, Strawberry, Fall Pippin, Baldwin, Roxbury Russet, and Tallman's Sweeting, are all good apples. We prefer the Sweet Bough to any apple we have tried for late summer and autumn feeding. The tree is a good bearer, the fruit rich, comes early, and will last until winter. For the winter feeding of animals, apples that will keep, will, of course, be selected. Our friend has chosen the proper course on the subject of chess, and while we invite the believers in transmutation to look at this case, we hope we shall hear further the result of his experiment.]

Messrs. Editors—Five years ago, I emigrated to the Far West, and after spending the summer in Illinois, purchased a fractional quarter of 175 acres of government land in the county of Knox. The August following moved on it; the next spring enclosed it with a rail fence. My land is prairie, and situated two and a half miles from the nearest timber. I have drawn my building and fencing timber above three miles. I have now, however, nearly three hundred rods of the white mulberry in hedge rows, of one and two years growth, embracing probably above eight thousand trees, all of which have been produced in two years from a few hundred seedlings. My hedges have been cut off at or near the ground, some once, others twice. The mulberry grows very rapidly on our prairies. I have the second years' growth from cuttings grown from the ground, that measure seven feet in height.

I wish to inquire through the Cultivator, the best mode to cultivate them, having in view both the raising of silk and the making of live fence. Also some of the best varieties of the apple to cultivate for the feeding of swine and neat stock.

I am cultivating the yellow locust for timber. I plant the seed in a nursery near a dwelling, to prevent the destruction of the young plant by the prairie hen. In the summer of 1839, they entirely destroyed five acres for me, planted in the field. I transplant the seedlings of one year's growth in rows, four by six feet, and cultivate the first season with the plow, after the western manner of cultivating corn. They make a growth the first season after transplanting, from five to nine feet, and send out such a multitude of branches that it is with difficulty a man can ride through the widest rows in the the fall on horseback. They will bear transplanting from the time the frost is out of the ground until the buds have expanded; not one in two thousand will fail. They may be propagated by cuttings, and by cutting the roots into pieces of an inch or two in length, and planted the same as the seed, only cover deeper; the seed should never be covered more than half to three-fourths of an inch. I lost the seed and planting of two acres last season by covering a little over an inch. I replanted, and took particular pains to cover less than three-fourths—same seed and preparation, and scarcely a hill failed.

I have the whole work of the Genesee Farmer, and can truly say I would not part with it for more than its first cost. I find it a valuable book of reference, and many an evening I have spent pleasantly in its perusal. I have probably read all that has been written on the subject of the transmutation of wheat into chess, but I always disbelieved the doctrine, and as I had commenced on a farm new and clean, and none had ever grown within three miles, I resolved I would begin the raising of wheat on a small scale, and sow clean seed. I accordingly purchased one bushel, and it was called pretty clean seed wheat. I picked it over by hand, and found about three pints of chess, which I carefully burned. On harvesting my first crop, I found only one stool of chess, and I thought I had done my work pretty effectually that I found no more. The second crop, from the heading of the wheat to the cleaning it for market, with close and careful examination, I found none. I have the third crop on the ground, and if that, or the same wheat produces chess on my farm, I will inform you.

Last season I received from the East a few small Rohan potatoes, not to exceed one sixteenth of a bushel; planted them one eye in a hill; the potatoes were large and fine, and measured a little over twenty-five bushels. I have annually grown the carrot, wurtzel and ruta baga; the two former I have harvested at the rate of more than one thousand bushels per acre—ruta baga, from five to eight hundred. The carrot and wurtzel suffer the least from drouth, and I think are the most profitable crops. I think they are all superior to dry corn for milch cows and other stock. I have wintered hogs with them to good advantage. The common hogs of the country are of the Landpike and Alligator breeds, and their crosses; I think, they must soon give way for the noble Berkshire, as some fine specimens of that breed have been brought from Albany to this county. L. R., Jr.

Henderson, Knox co., Illinois, 3d mo. 10th, 1841.

Wheat and Plaster.

Messrs. Editors—In answer to the subscriber from Gorham, respecting plaster sown in spring causing more rust in wheat, I would say, I have raised a good quantity of wheat here for the last nineteen years; have sown clover and plaster plentifully; but the last few years have abandoned the use of plaster on the wheat, unless the spring was very dry and the wheat backward, which is seldom the case here. I am satisfied that plaster has a tendency to rust wheat; so will any thing else that gives a larger growth of straw. Wheat, with a large growth of straw, is always later in ripening than that with a shorter straw; and late wheat is always more or less rusted. I have no difficulty in getting plenty of clover by plastering the next spring after sowing; but the best of the wheat land here is getting too much clover, barn-yard manure, and plaster; it is getting too rich for wheat, at least a great many farms are so; we get more straw than profitable. it costs a great deal to harvest, draw in and thrash, &c. and not so much more wheat as when we had lighter crops of straw. On new land the growth of straw is less, the wheat plump, and no rust, when the old fields, with great burthens of straw, will not produce more wheat.

I am using my barn-yard manure for meadows now, and am going to reduce my wheat land for a time. Now for wheat turning chess. I am surprised that the question gets so many advocates; but I suppose they are as great simpletons as I was some fifteen years ago. My land was very foul when I first got it, and plenty of chess amongst other things; and although I sowed clean seed, I got sometimes seven or eight bushels of chess for every 100 bushels of wheat, and thought I was certain the wheat became chess; however, by always sowing clean seed, I saw the chess gradually diminish. I gave my fallows additional plowings and harrowings, and got my seed clean, without a kernel of chess, and the chess disappeared entirely. I have now nearly 2,000 bushels of wheat, and I am certain there is not a gill of chess in the whole; indeed, I don't know if there is a single seed. I have examined almost every threshing, and could find none. Now, I think this might satisfy any person, that wheat does not turn to chess.

Yours, &c. JOHN JOHNSTON.

The best way I have found to clean seed wheat of chess, is to take out the riddles and sieve, or screen, out of the fanning-mill, put in a board in place of the *screen*, a little shorter at the back end than the screen, say one inch; then take off the rod that shakes the riddles; let one man pour the wheat in the hopper slowly, another turning fast enough to blow away the chess; *every seed can be blown out in this way*. Small and light wheat will also blow out; but it can be cleaned over in the common way, and made fit for market. J. J.

Fayette, near Geneva, Ontario co., N. Y., May 13, 1841.

Objections to New Things.

It was noted, in the Cultivator of February or March last, that my statement of the cure of dysentery and diarrhœa, &c. by homœopathic medicines, was received, but could not be published, lest it might lead to controversy; that nothing should be admitted into the Cultivator, not strictly agricultural. As farmers were pleased with every thing relating to the health of their farm stock, with new modes of cure for their lambs and pigs, I supposed they might be as readily pleased, and certainly as much interested in the cure of diseases in their children. My imagination was, that the novelty was the great objection. I made no attack on any profession, and could expect no angry reply from any source. More than one of the readers of the Cultivator have asked what it was that was rejected, and desired to be informed.

Members of the learned profession, I know, are apt to startle at every thing new, except flattery in their profession, as much as farmers are, to be advised to new improvements in their profession or calling.

But the subject was new, and for that cause opposed! To oppose any thing for that cause, does not appear to me to be wise; for all things are new to the human mind, when first presented to it.

The faculties of all animals in the scale of being below man, are given at birth, and they know their several wants and duties intuitively. Not so with man. The brain of man is not fully developed at birth, as it is of the inferior animals, but is progressive. All his wants and duties and improvements are to be learned, and to be acquired by tuition and experience. This, no doubt, is because the faculties bestowed on him are intellectual, and infinite in capacity. If this last expression appears too strong, I ask, who has discovered and marked the bounds of human knowledge, in moral or physical science? Who has learnt all that man is capable of learning, that no more can be learnt by him? Can any one say that he knows all things? The most learned and profound man can, with propriety, say that he is only at the threshold of human learning. Nor is his knowledge limited to this sphere. When he, his spirit, leaves this temporal body, it must become a citizen of a more celestial abode; and freed from cumbersome temporalities, possesses an enlarged capacity for improvement in spiritual knowledge. It will progress in improvements, as it moves from sphere to sphere, and must continue to improve, ad infinitum, before it can reach the heaven of heavens, to its God. The gift, his faculties, being wonderful and great, his duties and labors must be great also, for cultivation and improvement, to enjoy the blessings of the gift. It is founded also in wisdom and necessity; for, without exercise of both body and mind, man would become or remain a mere brute of the forest and of the plain. Let him not then neglect any thing because it is new to him, for his whole life is to be labor.

A profound and wise man will rather give most heed to things new. If objection had been applied to the internal improvements of our country, we should now be wallowing through the *mud*, and over the rough hills, at a slow pace, instead of making *the rough smooth*, and riding upon railways; and, we should also be loitering in bays, rivers, and oceans, waiting for winds, instead of flying on the water by steam, as if on the wings of the wind, with saving of time and with certainty in travel, and transporting the conveniences of life.

Are all these improvements in moral and physical science to be rejected because they are of recent discovery? On that principle, we should have rejected the evidences of Christianity.

In conversation with a Jew, not long since, I said to him, our religion and your's are from the same source. We believe in the same God, and in the same Moses, his prophet, as you do. We walk together, hear and believe all the prophets, till we arrive at the result of their prophecies, as foretold by Moses, who said, "The Lord thy God will raise up unto thee a prophet from the midst of thee, like unto me, unto him shall ye hearken." And is there not perfect accordance between the prophesy and the evidence in Jesus Christ? Why then should we *fall out by the way*, or why do you stop by the way, while we go ahead on evidence? He calmly replied, "We must respect the religion of our fathers." Objection to things because they are new! Is man thus endowed with this wonderful capacity for going ahead, to be limited by ignorance or obstinacy?

The history of the Eastern Continent furnishes evidence, that when some of the tribes of men plunder and enslave all whom they meet weaker than themselves; that when their martial music and movements are heard by their weaker neighboring tribes, they sling their bag of rice over their shoulders, lend their hands to the wife and children, and flee to the wilderness, to seek shelter and safety among hyenas and tigers, from the face of their fellow-men. Not so with brutes of the same species. What a shocking and hideous picture of the condition of him who was made in the image of God! What a boon was Christianity to man in such a state, teaching him to love God with all his heart, and his neighbor as himself. And this precept would be rejected on the principle of novelty. Christ was objected to, because his doctrine was new; and yet we see that all the improvements of man, in his present boasted and enlightened state, are indebted to the *new* doctrine of Christ.

Will the improvements in moral and physical science be rejected by the readers of the Cultivator, because they are new?

Does not the Cultivator advise the agriculturists to cultivate their farms, by adopting the *new* mode of those who have successfully practiced the new methods?

Most respectfully, DAVID TOMLINSON.

Schenectady, February 11, 1841.

Black Rust on Plum Trees.

UNSUCCESSFUL EXPERIMENT.

In a former volume of the Cultivator, I noticed a recommendation of sulphur as a remedy to drive caterpillars from trees. I concluded that if it would have this effect upon insects in the *larvæ* or caterpillar state, it might also act upon the insects in the same state in the black knots or excrescences on plum trees, called the *black rust*. This excrescence or fungus, is caused by an insect which lays its eggs on the limbs of the tree. The punctures made in the bark by the insect, poison the tree, and a warty excrescence follows, which becomes the nidus of numerous insects. The eggs hatch into little maggots, which are the insects in the form of *larvæ*. They feed upon the soft exudations of the tree, and having attained their growth, are transformed without leaving the black knots into the state of *chrysalis*, (or torpid state.) They remain therein until their transformation into the *imago*, or perfect insect, when, in May or June, they emerge from the knots, take wing and repeat the operation of depositing their eggs.

The insects, I have seen emerging from the rusty excrescences on my plum trees, are in shape like the wasp, but quite small, or a little larger than a musqueto. I believe it to be a species of Ichneumon, one of the destructive tribes which I have not succeeded in capturing.

The experiment on the plum trees, disordered by the black rust, was made with sulphur, in the following manner, and although unsuccessful, may lead to the application of other remedies.

In the spring of 1840, all the black knots or rust on a number of plum trees, were cut off, except where they were on large limbs or the body of the tree, and these were shaved off with a knife, and rubbed with sulphur. Holes were also bored in the trees about two inches deep, inclining downwards, and then filled with sulphur. In the autumn after the leaves had fallen, I found the trees nearly as full of these fungus knots as they were before. This spring (1841) the operation of taking them off, has been repeated as far as practicable, and the trees manured, in the hope of exterminating the insects and curing the disease. This has spread to my green gage trees, and I have noticed a wild cherry tree on my neighbor's land greatly disfigured by the black rust.

Richmond.

The Cut Worm.

Messrs. Editors—It was stated as a fact in the Genesee Farmer of 1838, that the army worm, in its destructive progress, committed no depredations on the clover; and the observance of this fact gave rise to the suggestion that farmers would do well to raise, each year, a crop of clover, as a resource, when other grasses should be destroyed by the worm.

I know not what relationship or resemblance may exist between the army worm and the cut worm, but a considerable acquaintance with the latter has resulted in the belief that the *cut worm* does not feed on clover; at least I have seen no evidence of its doing so.

Every person who has paid any attention to the natural history of the insect tribes, has been struck with the unerring instinct which enables and directs the parent insect to deposit its eggs precisely in the situation where the proper food will be found at hand, and in readiness for its young. The natural food of the cut worm appears to be the roots and tender shoots of the timothy, red top and June grass. I have never seen the cut worm except near where some one or more of these grasses were growing. In addition to *their* presence, it seems also requisite that the *soil* should be so loose that the parent insect can bore a sufficient depth to reach a suitable place of deposit for her eggs, and that the worm may move from place to place just beneath the surface, or else burrow in the soil, to escape the force of the sun's rays, when the ends are answered, which may have brought it to the surface. Neither of these purposes could be effected in firm and compact greensward.

I have seen considerable damage done, by the cut worm to cornfields planted on greensward which had been turned up soon after the frost was out of the ground in the spring, yet this was where the sward had not become firm and compact; but the greatest supply of the worm, and amount of

damage has occurred in lands where a crop of winter rye has been raised on greensward, plowed after cutting of the grass for hay, and where the stubble has been plowed sometime in autumn, subsequent to taking off the rye crop. In this mode of cultivation, it is often the case that a considerable amount of the grass roots have retained their life, and their power of vegetation is even increased by the loosening of the earth around them. Here, then, is furnished a capital chance for the breeding of the cut worm, and the farmer may consider himself very fortunate, if his crop of vermin is not quite too great for the safety and success of his crop of corn. The corn, it is true, is not meddled with at first. The worm uses its natural food till the plow or the cultivator and the hoe have essentially diminished its quantity. Then the depredations commence. Anon comes the plow and hoe again, and if these do their duty well, the worm has no alternative, but to eat the young corn or starve. We know, by sad experience, what course the worm will take in this dilemma.

The foregoing remarks are made with the hope that they may lead to further investigation, and ultimately, as I hope, to some mode of avoiding or resisting this enemy to one of our most valuable crops. Could such a result be brought about, it would afford great satisfaction to your obedient servant, J. S.

Hardwick, Mass., March 20, 1841.

Monthly Notices.

Importation of Stock.—L. E. Letton, Esq., of Kentucky, arrived at New-York from Liverpool, on the 20th of May, with "*two young thorough-bred Flanders Horses*—one 2 years old, black, 16 hands high, heavy and well built"—the other, a yearling of a dark grey color, which Mr. L. thinks will make the largest horse; his sire weighs upwards of 2100 lbs. Mr. L. also brought out with him a *Short-Horn Bull*, from the herd of Mr. Bates, of Kirklevington, called *Locomotive*, 2 years old past, color light-roan, sired by the Duke of Northumberland, dam Oxford. Both dam and sire won the first prizes of 30 sovereigns each, as the best Short-Horn Bull and Cow, at the Fair of the Royal Ag. Society in 1839. Locomotive cost in England £275—[including difference of exchange $1,222·75.]

Sales of Hogs.—In a letter of June 16, Messrs. A. & G. Brentnall, of Canterbury, Orange co., N. Y., inform us that they have lately sold to Richard Allen, Esq., of Lexington, Ky., a Berkshire sow, 20 months old, for $150—also a boar and sow to T. B. Howard, Esq., of Columbus, Geo., for $150, and have now an offer of $75 each for two sows and a boar, besides $200 for their boar Ontario,—all Berkshires. Dr. S. D. Martin, of Ky., has recently sold "his Woburn sow Magnolia," to Mr. Johnston, of Missouri, for $150. She is estimated to weigh 1200 lbs.

Large Yearlings.—Mr. S. Hecox, of Lyons, Wayne county, N. Y., says that he "has two bull calves, raised from the improved short-horned Durhams, imported by Mr. Weddle, of Ontario county; the one, a three-quarter blood, which at one year old weighed 1015 lbs.—the other, a half-blood, weighed at the same age 915 lbs. Their feed during the winter has been hay and roots without grain. They are not fat, but in a good growing condition, and for symmetry and beauty can hardly be surpassed." Both are for sale.

Leicester Pigs.—Mr. Hecox also informs us that he has "some pigs of the Leicester breed, raised from the stock imported by the same gentleman, which he considers superior to the Berkshires; they are purely white, fine small boned, have small heads, thin ears, thin clean skin, with but little hair, well formed, keep easy and fatten readily." Some of them are for sale.

Prouty & Mear's Premium Plow.—A letter from the manufacturers, says:—"We make these plows of a great variety of sizes, and the retail prices are from $5 to $20. The size used at the trial at Worcester, was the smallest greensward—furrow 6 inches deep, 12 wide, and draft 292 lbs. We sell this size, with cutter and wheel, at $11-50." These plows are for sale by the manufacturers, D. Prouty & Co., Boston, and by D. O. Prouty, 176 Market st., Philadelphia. We hope the proprietors will send one of these plows for trial at the Fair of the N. Y. S. Ag. Society, to be holden at Syracuse on the 29th Sept. next.

New-Jersey Marl.—New-Jersey was formerly famous for its *barren sands*, but it is now, owing to the liberal use of marl, fast becoming one of the most productive States of the Union. The Cabinet says:—"My friend R. S. whose farm, a few years since, yielded nothing but blackberries, and was one uncultivated waste, produces the finest crops of wheat, and other grains and corn, and yielded more than 100 loads of hay the last year, at a cut of two and a half tons per acre; and all this is owing to the marl." The value of these marl beds may be inferred from the fact, that Mr. A. Cooper by selling the marl by the square rod, "is realizing $1500 per acre for the marl, the land afterwards being more valuable than before."

Great Ox.—The celebrated ox Pennsylvania, was slaughtered in Philadelphia on the 2d of Feb. 1841. This ox was of a cross between the Devon and Durham; was eight years old; had been fed five years; and his live weight was 3350 lbs., dead weight of the 4 quarters 2388; loose fat 334 lbs. On cutting up, the flesh was found "elegantly mottled," the flesh laid on the best parts, and the five years feed not gone to "make soap and candles," as Bakewell used to remark of such very fat animals. The Farmer's Cabinet for March, contains a figure of this ox, with a description.

Peruvian Barley.—A new kind of grain has lately been introduced into England from Peru, in which country, when one crop is reaped new shoots proceed from the stems, which give a second plentiful crop. The grain when standing has the appearance of barley, but much whiter, with a long beard or awn. On being gathered and rubbed in the hand, or threshed, the awn comes off with the husk, and leaves the grain bare like wheat, to which it bears a stronger resemblance than to barley.

Old Lime Plaster on Wheat.—A writer in the Farmer's Gazette says, he sowed two pieces of spring wheat after brining and rolling the seed in slaked lime. On one of these fields he sowed or spread a number of loads of old plaster from the walls of old houses, and harrowed it in with the seed. Both fields were entirely free from smut, which that year was generally ruinous to wheat; but that the wheat of the field where no lime was used (except for rolling the seed) was badly shrunk, while that which grew on the field well sprinkled with old plaster, was *good, sound, plump wheat*.

"Great Calf."—An animal of the *Bos* genus, some five years old, has been lately exhibited at Fulton st., New-York. He is of the ordinary breed of cattle, has never eat a bushel of corn or meal in his life, sucks the same cow now that he did when three days old, and weighs 3240 pounds. This "calf" from the banks of the Connecticut, attracted much notice in "Gotham."

Swedish Stables.—In Sweden the horse stables are never littered at all. The floors of the stable are planked; the planks perforated with holes, so that no wet can remain on them; and these planks kept clean are the only bedding allowed. To this method of treating their horses, (strange as it appears to Englishmen, or those who litter their stables carefully,) the Swedes attribute the soundness of their horses' feet, as it is quite uncommon to meet with a lame or foundered horse in Sweden, that has been so stabled.

A Good Crop.—Mr. Samuel Palmer of Goshen, Ct., gives the following as the crop taken in 1840, from five acres of land: 600 bushels of corn in the ear, 118 cart loads of pumpkins, 300 bushels of turneps, and 240 bushels of potatoes. It was unnecessary for Mr. P. to state that the ground was early and well prepared, properly manured, and that the after culture was good. Such a crop can be produced under no other course of treatment, and the sooner farmers are convinced of this fact, the better it will be for them.

Prolific Hens.—In our younger days we "heard tell" of a hen that on week days laid two eggs, 'while on Sunday she laid three.' The Baltimoreans assert that they have some hens of the game cock breed, which rival the first part of the old story, they having laid two eggs a day for a considerable time. Let the race be multiplied.

Too much Truth.—The New Farmer's Journal, London, says:—"The monetary affairs of the States appear to be in a most desperate condition. The U. S. Bank is scarcely capable of paying a shilling in the pound, and many other banks throughout the Union are in a similar condition. From the reports recently published by the congressional committee on banking, it appears that in some of the banks no set of books had ever been kept; in others, trunks filled with "lead, tenpenny nails, and window glass broken into small pieces," passed for deposits of specie; in some no capital stock had ever been paid in, and in others counterfeit notes on other banks had been resorted to to sustain their credit."

Gullibility.—A paragraph, giving an account of a discovery made in Jamaica, we believe, of the substitution of mosquetoes for leeches in medical practice, is going the rounds of the newspapers, and has been copied into some of our agricultural contemporaries as a "wonderful" discovery. We cannot as yet advise our farmers to leave their harvests to enter into this musquetoe speculation.

Preservation of Meat.—The particulars of a discovery which appears to promise important results, are given in the Bulletin of the French Academy of Sciences for the sitting of March 22. By injecting the aorta or main arterial trunk of an animal with chlorure of aluminium, the flesh will be preserved fresh for an indefinite period without having any bad taste communicated. The table of the Academy of Science, at the time of reading the memoir of M. Gannal, the discoverer, was covered with legs of mutton, fowls, *et id genus omne*, which had been preserved many months by the new process.

Crushed Cob and Corn Meal.—We have constantly maintained that a great loss was sustained in feeding animals by those who rejected the cob of the corn, and every experiment that has yet been made goes to establish the correctness of these conclusions. In a late number of the Farmer's Register is a communication on the subject, by a writer who signs himself "Ploughboy," from which we make the following extracts:—"I find by repeated experiments that one gallon of crushed corn meal (corn and cob together,) *well boiled*, will, when cooled, make about five gallons of thick mush. This mush I mix in feeding with about an equal quantity of hot water, frequently throwing to the pail a double handful of bran, stirring it well, and giving it to my pigs warm. I put a handful of salt into my mush about three times a week, and occasionally a shovel full of ashes. With this allowance my hogs are in fine order, and in a much better condition than any of my neighbors, and some of them are fat enough for the knife. * * * * I know of no way except, perhaps, by feeding on roots, in which hogs can be kept through the winter at so little expense. My stock of thirteen, for instance, consume only a peck of crushed corn meal, equal to a single gallon of corn, a day. This, at the corn is selling in my neighborhood, 37½ cents per bushel, is only one-third of a cent a day for each hog. The manure will more than pay the extra trouble and expense of preparing the food." The same article furnishes proof that as food for working mules or horses, for fattening cattle, or for milch cows, crushed cob and corn meal is one of the very best and cheapest substances that can be used. We believe that every farmer who uses any considerable quantity of corn should prepare it by grinding with the cob.

Truth.—By placing what manure we have in the hill, and endeavoring to get the whole strength of it the first year, we keep our lands eternally poor—there is nothing left to nourish the succeeding crop. If a man has but little manure he should plant but little, and his manure should be so applied that he can stir it in, tilling and mix it with the soil.

An Act

TO ENCOURAGE THE GROWTH AND MANUFACTURE OF SILK.

[Passed May 26, 1841.]

The People of the State of New-York, represented in Senate and Assembly, do enact as follows:

§ 1. To any person or persons residing in this State, who shall present for examination, to any justice of the peace of the city or town where such person or persons reside, a pound or more of good dry silk cocoons, or a pound or more of good, well reeled silk, and shall by his, her or their oath or affirmation, or by the oath or affirmation of some other credible person, prove to the satisfaction of such justice that the cocoons presented were raised in the city or town where such justice resides, or that the silk was reeled in such city or town and from cocoons raised in this State, and that the same or any portion thereof has not been before presented to any justice of the peace for examination and certificate, the said justice having examined and caused the same to be weighed, shall give his official certificate specifying the number of pounds of cocoons or silk presented, the time when and the place where the same were raised or reeled, and the names of the person or persons by whom the same were raised or reeled, together with the name of the person by whose oath or affirmation the facts have been verified. And on the presentation of any such certificate to the board of supervisors of the same county, they having examined and found the same to be duly given, shall audit and allow said certificate and cause their allowance to be endorsed upon the same, requiring the treasurer of said county to pay to the bearer thereof, a premium of fifteen cents for every pound of cocoons and fifty cents for every pound of reeled silk specified in said certificate.

§ 2. It shall be the duty of each county treasurer, to whom such certificates thus audited and allowed shall be presented, to enter in a book, kept by him for that purpose, the date of said certificates, the number of pounds of cocoons or reeled silk named therein, and the name of the person or persons for whose benefit the same were given, and to endorse upon said certificates his acceptance thereof and the time when presented to him, and return the same to the bearer thereof, to be presented for payment as hereinafter directed.

§ 3. On or before the first day of May, in each and every year, the several county treasurers of this State, to whom shall have been presented for acceptance any such certificate or certificates as are specified in the preceding sections of this act, shall cause to be made an abstract or abstracts of all such certificates so presented and accepted, stating the number of pounds of cocoons or reeled silk and the amount of premium due therefor, and shall transmit the same to the comptroller of this State, who shall by his warrant authorize and direct the treasurer of the State to pay to the county treasurers the several amounts specified in the abstracts by them transmitted. And the said county treasurers shall thereupon proceed to pay the premiums due upon the certificates by them respectively accepted, as the same shall be presented for payment.

§ 4. False swearing or affirming under this act shall be deemed as perjury; and any fraud practised under the same shall be a misdemeanor, and be severally punished as such.

§ 5. A justice of the peace shall be entitled to receive, for every certificate given by him by virtue of this act, the sum of twenty-five cents, to be paid by the person receiving the certificate.

§ 6. This act shall continue in force until the first day of June, in the year eighteen hundred and forty-six, and no longer.

Notices to Correspondents, &c.

Communications have been received during the past month, from An old Subscriber, F. R. G., F. Burt, L. Lewis, A Subscriber, Corrector, Geo. Muntz, J. McD. McIntyre, S. Robinson, J. R. Moser, Long Island, O. G., Joseph Cope, J. H. Hepburn, Garrett Bergen, Horace Hawley, and S. W. Bartlett.

Mr. Stephen's communication on Draining, and Mr. Cain's plan of a Church, which have been a long time waiting for a place, shall appear next month.

We received in due time, Mr. Sandford's Address before the Onondaga Co. Ag. Society, at its Fair in 1840, and should have been glad to have laid the whole of it before our readers, as it abounds with valuable facts, sound and wholesome truths, and principles of great interest to every American farmer; but as we could not give it at length, we marked very liberal extracts from it, for which we had hoped to have made room before this time.

Acknowledgments.—We are indebted to the publishers for a copy of the American edition of "*Liebig's Organic Chemistry of Agriculture and Physiology*," with an Introduction, Notes, and Appendix, by Prof. Webster, of Harvard University. The speedy republication of this valuable work is a compliment to American farmers, which we trust they will not be slow to appreciate in such a manner as to induce our booksellers more frequently to engage in the publication of works on Agriculture and its kindred sciences. Published by John Owen, Cambridge. For sale, we presume, by the booksellers in most of our cities—price $1-50.

Our thanks are due to the Author and to the publishers, for copies of Mr. Colman's Address on the Agriculture of the United States, delivered before the American Institute in New-York, on the 14th April, 1841. This excellent address may be had of Chapin & Co., booksellers, 138 Fulton st., New-York, and of O. Steele, bookseller, in this city.—Also to Mr. Affleck, one of the editors of the Western Farmer and Gardener at Cincinnati, for a copy of his Treatise on "Bee-Breeding in the West," just published by E. Lucas of that city.—Also to Mr Ellsworth, Commissioner of the Patent Office, for some parcels of Kentucky Pumpkin and Cushaw seed; and to W. B Ogden, Esq., of Chicago, for samples of the Wild Rice from the Upper Mississippi.

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